

Introduction to the Complete Web Developer Course

Dreamweaver

Nature of the course: Theory + Practical

Total hours per day: 2 hours

Course duration: 1 and a half weeks

Course Summary

The DTC–Dreamweaver course is designed for people who have a basic understanding of Webpage, HTML, and CSS, as well as how to establish site structure, use AP Element to generate interactive images, and update published files. Anyone with basic experience of web page design and structure, as well as high school and university students who want to perform some coursework, would benefit from this course.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Text Books

1. Building Websites All-in-One For Dummies
2. Adobe Dreamweaver Creative Cloud Revealed
3. Dreamweaver CC: the missing manual

Prerequisites

- There is no prior educational level requirement for this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.
- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you!

Course Details

WEEK 1

What is Dreamweaver?

- Using the Dreamweaver Workspace

- Working with the Document Window
- Setting Your Preferences
- Getting Help
- Understanding the Site Creation Process
- Creating the Site Structure
- Defining the Site
- Understanding HTML and CSS

Creating a New Document

- Defining Page Properties
- Creating a Layout
- Adding Text
- Importing a Word Document
- Including Existing HTML Documents
- Creating a Template
- Using a Template

Understanding Objects

- Exploring the Assets Panel
- Inserting Images
- Creating Rollover Images
- Previewing a Document
- Using AP Elements to Create Interactive Images
- Attaching Behaviors to AP Elements
- Using Library Items

Creating a Table

- Adding Elements to a Table
- Creating a Form
- Adding Form Controls
- Inserting Multimedia Objects

Understanding Links

- Creating a Text Link
- Creating an Image Link
- Creating an Image Map
- Inserting a Navigation Bar

- Adding a Jump Menu
- Working with the Site Map DTC

WEEK 2

Understanding Text Formatting Options

- Formatting Text
- Creating Lists
- Formatting Tables
- Creating Frames
- Using Frames

Introduction to CCS

- Creating and Applying CSS Styles
- Working with Style Sheets
- Modifying CSS Styles
- Using CSS Layouts
- Adding AP Elements 8. Generating Reports
- Checking Links
- Validating Tags
- Checking Target Browsers
- Publishing to a Remote Site
- Using Check In/Check Out
- Updating Published Files
- Synchronizing Files

LABS

Lab assignments will focus on the practice and mastery of contents covered in the lectures; and introduce critical and fundamental problem-solving techniques to the students.

Java Script

Nature of the course: Theory + Practical

Total hours per day: 2 hours

Course duration: 2 weeks

Course Summary

The Java Script course at the Deerwalk Training Center (DTC) is designed for novices who wish to learn how to think about and produce meaningful Java Script code, as well as read Java Script code written by others. The course also teaches how to translate a literary description of a problem (requirement) into a Java Script application or library.

This is a foundational course for anyone with no prior programming expertise who wants to work as a professional Java Script engineer in the future.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Text Books

1. JavaScript: The Definitive Guide, 5th edition
2. Introduction to Programming Using Java by David J. Eck
3. JAVA the complete reference by Herbert Schildt

Prerequisites

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a theoretical knowledge that is perfectly okay but you should have strong convictions on what programming is, and what you hope to achieve from this class.
- Willing and eager to spend at least 10-20 hours (varying from student-to-student) per week outside of the training class to read/write codes in Java (self-study and practice).
- There is no prior educational level requirement for this course. Anyone from 10+2 student to someone who is doing her PHD in Genetic Engineering is welcome to take this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.
- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you!

Course Details

WEEK 1

UNDERSTANDING JAVASCRIPT

- Introduction
- History of JavaScript
- Tools for JavaScript Development
- Introduction to Web Console
- Adding JavaScript to HTML

WORKING WITH DATA

- Variable
- Data types
- Arithmetic operators and math
- Strings and Numbers
- Conditional statement and logic
- Arrays
- Properties and methods in Arrays
- Loops
- Looping through Arrays
- Break and continue loops

FUNCTIONS AND OBJECTS

- Functions in JavaScript
- Argument and return values
- Variable scope
- let and const
- Objects
- Object constructors
- Closures

WEEK 2

JAVASCRIPT DOM ELEMENTS

- DOM: Document Object Model
- Query Selectors
- Access and change elements, classes, and attributes
- Add DOM elements
- Apply CSS to elements

- [Class Project: Create an Analog Clock]

JAVASCRIPT DOM EVENTS

- What are DOM events?
- Typical DOM events
- Trigger functions with event handlers
- Add and use event listeners
- Pass argument via event listeners
- [Class Project: Typing Speed Tester]
- [Class Project: Automated Responsive Images Markup]

JQuery

Nature of the course: Theory + Practical

Total hours per day: 2 hours

Course duration: 1 and a half weeks

Course Summary

The JQuery course at the Deerwalk Training Center (DTC) is designed for novices who wish to learn how to think about and produce meaningful JQuery code, as well as read JQuery codes written by others. The course also teaches how to translate a literary description of a problem (requirement) into a JQuery application or library.

This is a foundational course for anyone with no prior programming expertise who wants to work as a professional Java Script engineer in the future.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Text Books

1. JavaScript and JQuery: Interactive Front-End Web Development
2. jQuery in Action
3. Learning jQuery

Prerequisites

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a theoretical knowledge that is perfectly okay but you should have strong convictions on what programming is, and what you hope to achieve from this class.
- Willing and eager to spend at least 10-20 hours (varying from student-to-student) per week outside of the training class to read/write codes in JQuery (self-study and practice).
- There is no prior educational level requirement for this course. Anyone from 10+2 student to someone who is doing her PHD in Genetic Engineering is welcome to take this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.
- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you!

Course Details

WEEK 1

QUICK INTRODUCTION

- What is jQuery?
- Setting up the environment
- First jQuery enabled page
- Selectors and filters
- Creating and modifying page content
- Handling events
- Animation page content

WORKING WITH PAGE CONTENT

- Basic and advanced selectors
- Basic, attribute, and advanced filters
- Traversing documents with JQuery
- JQuery Statement Chaining
- [Class Project: Scripting challenge]

MANIPULATING PAGE CONTENT

- Creating page content
- Inserting, altering and manipulating page content
- Manipulating attributes
- Working with CSS
- Embedding custom data
- [Class Project: Scripting challenge]

WEEK 2

JQUERY EVENTS

- jQuery event handling features
- Binding and unbinding events
- Event helper features
- Using jQuery event object
- [Class Project: Scripting challenge]

ANIMATION AND EFFECTS

- Introduction to jQuery animations
- Hiding and showing elements
- Fading elements
- Sliding elements
- Custom animations
- [Class Project]

Ajax

Nature of the course: Theory + Practical

Total hours per day: 2 hours

Course duration: 1 and a half weeks

Course Summary

The Ajax course at the Deerwalk Training Center (DTC) is designed for novices who wish to learn how to think about and produce meaningful Ajax codes, as well as read Ajax codes written by others. The course also teaches how to translate a literary description of a problem (requirement) into a Ajax application or library.

This is a foundational course for anyone with no prior programming expertise who wants to work as a professional Java Script engineer in the future.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Text Books

1. Ajax: The Complete Reference
2. ASP.NET AJAX Programmer's Reference

Prerequisites

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a theoretical knowledge that is perfectly okay but you should have strong convictions on what programming is, and what you hope to achieve from this class.
- Willing and eager to spend at least 10-20 hours (varying from student-to-student) per week outside of the training class to read/write codes in Ajax (self-study and practice).
- There is no prior educational level requirement for this course. Anyone from 10+2 student to someone who is doing her PHD in Genetic Engineering is welcome to take this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.
- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you!

Course Details

WEEK 1

GETTING STARTED

- What is AJAX?
- Using a synchronous XHR request
- Making request asynchronous
- Scripting for backwards compatibility

MODIFYING THE DOM

- Update the DOM with get Element By Id
- Modifying elements with get Elements By Tag Name
- Parsing XML using AJAX
- Reading JSON files
- Using event-driven AJAX

jQuery AJAX

- Understand jQuery AJAX methods
- Create and AJAX request in jQuery
- Work with the data returned from a jQuery AJAX request
- Reading data with jQuery

WEEK 2

AJAX IN ACTION

- Preparing a live search AJAX app
- Sending JSON data to the page
- Searching JSON data
- Styling an application
- Adding CSS3 animations

[Class Project: ZIP code lookup]

Vue.js

Nature of the course: Theory + Practical

Total hours per day: 2 hours

Course duration: 1 and a half weeks

Course Summary

The Vue.js course at the Deerwalk Training Center (DTC) is designed for novices who wish to learn how to think about and produce meaningful Vue.js codes, as well as read Vue.js codes written by others. The course also teaches how to translate a literary description of a problem (requirement) into a Vue.js application or library.

This is a foundational course for anyone with no prior programming expertise who wants to work as a professional Ajax engineer in the future.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Text Books

1. Node.js complete reference
2. Node.js for .NET developers

Prerequisites

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a theoretical knowledge that is perfectly okay but you should have strong convictions on what programming is, and what you hope to achieve from this class.
- Willing and eager to spend at least 10-20 hours (varying from student-to-student) per week outside of the training class to read/write codes in Ajax (self-study and practice).
- There is no prior educational level requirement for this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.
- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you!

Course Details

WEEK 1

INTRODUCTION

- Get to know Vue
- Vue Benefits
- What you should know

THE SIMPLEST FORM

- Adding Vue to a web page
- Understand execution flow
- A Bootstrap detour
- Thinking declaratively with data binding
- Understanding two-way data binding
- Methods and event handling

ESSENTIAL DIRECTIVES, OPTIONS, AND TOOLS

- Rendering elements conditionally
- Loading data asynchronously
- Using the created lifecycle hook
- Using the Vue Devtools browser extension
- Rendering list with v-for
- Using additional v-for parameters
- Combining v-for with event handling
- Using computed properties

WEEK 2

ENHANCING USER INTERFACES

- Adding dynamic style attributes
- Adding dynamic class attributes
- Using CSS transitions
- Applying transitions to lists
- Using CSS animations

VUE COMPONENTS

- Using Vue components
- Registering and using components
- Adding component props
- Managing component content with slots
- Componentizing existing in-DOM templates
- Handling events in component
- Vue CLI
- installing Vue CLI
- Vue CLI project template
- Moving to single-file components

- Building for Protection

PHP/MYSQL

Nature of the course: Theory + Practical

Total hours per day: 2 hours

Course duration: 4 weeks

Course Summary

Java course for beginners is targeted for beginners who want to learn how to think and write meaningful piece of codes in PHP/MYSQL, understand how to read PHP/MYSQL codes that have been written by somebody else and how to map literary description of a problem (requirement) to an application/library coded in PHP/MYSQL. In summary, this course teaches how to program using PHP/MYSQL programming language. This is a core basic level course that is essential for anyone who has no prior programming experience but wishes to be a professional PHP/MYSQL engineer in future.

Completion Criteria

After fulfilling all of the following criteria, the student will be deemed to have finished the Module:

1. Has attended 90% of all classes held
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in assessments
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Text Books

1. PHP: A beginner's guide
2. PHP & MySQL Web Development All-in-one Desk Reference for Dummies

Prerequisites

- Basic knowledge about programming, bits/bytes, procedures, classes, computer architecture, etc. If you just have a theoretical knowledge that is perfectly okay but you should have strong convictions on what programming is, and what you hope to achieve from this class.
- There is no prior educational level requirement for this course.
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- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you!

Course Details

WEEK 1

UNDERSTANDING THE PHP/ MYSQL BASICS

- How PHP works
- The PHP.ini file
- PHP tags
- PHP Statements and Whitespaces
- Comments
- PHP functions

VARIABLES

- Variable types
- Variables Names
- Constant

FLOW CONTROLS

- If statements
- For loop
- While loop
- Case statement

WEEK 2

REUSING CODE AND WRITING FUNCTIONS

- Including files and Writing functions
- Require
- Require once
- Include
- User functions
- Defining and calling functions

INTRODUCTION TO DATABASE

- Basic difference between database and file system
- Introduction of MySQL
- Connection mechanism using PHP and MYSQL
- Create table, select, insert, update and delete command
- Making form with JQuery validation and inserting in table
- Displaying all rows of table and disable in HTML table format.
- Edit records using HTML form.
- Delete records
- Single-Dimensional Arrays

- Multidimensional Arrays
- Casting Arrays
- Associative Arrays
- Accessing Arrays
- Getting the size of an array
- Looping through an array
- Looping through an associative array
- Examining array
- Joining arrays
- Sorting arrays
- Working EXAMPLES (Lab)

WEEK 3

FUNCTIONS

- What is a function
- Defining a function
- Returning value from function
- User-defined functions
- Variable scope
- Accessing variable with the global statement
- Function calls with the static statement
- Setting default values for arguments
- Passing arguments to a function by value
- Passing arguments to a function by reference
- Testing for function existence
- Working EXAMPLE (Lab)

WORKING WITH THE FILE SYSTEM

- Creating and deleting a file
- Reading and writing text files
- Working with directories in PHP
- Checking for existence of file
- Determining file size
- Opening a file for writing, reading, or appending
- Writing Data to the file
- Reading characters
- Working Example

WEEK 4

CLASSES AND OBJECTS

- Objects oriented programming
- Define a class
- An Object
- Creating an object
- Object properties
- Object methods
- Object constructors and destructors
- Class constants
- Class inheritance
- Abstract classes and methods
- Object serialization
- Checking for class and method existence
- Exceptions
- Iterators
- Summary
- Working EXAMPLE (Lab)

THE ANATOMY OF A COOKIE

- Setting a cookie with PHP
- Deleting a cookie
- Creating session cookie
- Working with the query string
- Creating query string
- Working EXAMPLES (Lab)

SESSION

- What is session
- Starting a session
- Working with session variables
- Destroying session
- Passing session Ids
- Encoding and decoding session variables
- Working EXAMPLE (Lab)

Learning Outcomes

- Create an HTML/CSS structure and put it into action
- Use web development techniques that are intermediate and advanced
- Implement the fundamentals of JavaScript
- Create visualizations that follow UI/UX principles
- Develop and deploy a fully functional website on a web server
- To achieve working results in a project, find and use code packages based on their documentation
- Create webpages that rely on external data to function
- By combining visual components and classes, you can create solutions to programming challenges
- Determine mobile strategies and create designs for a variety of operating systems.
- Identifying multi-device implementation trends
- Implement a RESTful backend API for AJAX-based data storage and retrieval