

ADVANCED WEB DEVELOPMENT : ACTIONSCRIPT 3.0 & PHP

100 CONTACT HOURS/
10 CONTINUING EDUCATION UNITS

Ai The Center for Professional Development
The New England Institute of Art®

CERTIFICATE IN ADVANCED WEB DEVELOPMENT

The Certificate of Completion in Advanced Web Design: ActionScript 3.0 and PHP introduces participants to the programming used most often in Adobe Flash and the open source server side programming language, PHP. This class deals with presenting information and materials in a dynamic interactive way via ActionScript in the Flash player but also investigates how that information is transmitted and stored by exploring the concepts of XML, SQL and basics of relational database design and creation with SQL Server.

Also, the class provides a foundational look at the Model-View-Controller architectural pattern which is the basis for most advanced web site design.

Note: Participants in this program must have their own domain that can host PHP and SQL server. If needed, a list of known hosting sites can be supplied for you.

From concept to product delivery, course content is designed with the most relevant industry standards in mind. Faculty work in the fields in which they teach and can therefore update participants on current industry demands and practices in a hands-on setting. All work culminates in the creation of an individual project that draws from the skills attained throughout the Certificate program.

Participants in the Advanced Web Design: ActionScript 3.0 and PHP Certificate program are required to have a fundamental working knowledge of software applications on a Mac or PC platform and have worked in a professional capacity for at least two years.

Direct industry experience is not required.

Course work is hands-on and taught in a PC Lab. Participants may access computer labs outside of class time for course work and homework completions. Courses meet one evening per week or on Saturday. All course work is graded Pass or Fail.

CERTIFICATE COURSE SEQUENCE:

- Introduction to XML
- Introduction to ActionScript 3.0
- Introduction to PHP
- Introduction to SQL
- Intermediate PHP: PHP and SQL
- ActionScript Capstone Class

Please see below for detailed descriptions of some of the sample materials that may be covered in each course within the sequence.

Course curricula will vary depending on the instructor; however, the following pages provide an overview of the principles to be covered.

COURSE DESCRIPTIONS

WSD 310 Introduction to XML

This introductory course is intended for individuals who have little or no knowledge of XML.

Upon completion of this course, you will have:

- Explored the Model-View-Controller architecture structure in web design
- Examined types of nodes in XML
- Examined relationships between nodes in XML
- Created an XML file to be used in a simple podcast
- Understand both dot notation and square bracket notation in XML

Software Used (WSD 310): Adobe Dreamweaver

WSD 311 Introduction to ActionScript 3.0

This course will teach you the ActionScript 3.0 language basics and intermediate skills. It will introduce you to ActionScript class structure, the DisplayList and interaction components both internal and custom built by you. You will learn how to retrieve and parse XML from other system and then use this data to populate display objects in the Flash Player. You also learn how Flash and ActionScript can capture data from a viewer and send it back to the server as XML to be stored in the preferred manner. Our first projects will to be creating a RSS reader in Flash.

Upon completion of this course, you will have:

- Understanding of the Flash IDE
- Understand the concept behind RIA's (Rich Internet Applications)
- ActionScript Design and Development Basics
- Understand EX4 and data transfer in Flash
- Load and Send XML data to Back end services

Software Used: Adobe Flash, Adobe Dreamweaver

WSD 312 Introduction to PHP

This course will explore the power, abilities and syntax of the open source server side computer language, PHP.

Upon completion of this course, you will have:

- Explored PHP Syntax
- Manipulated Multi-Dimensional Arrays with PHP Array Functions
- Created XML data structures and exported to external files

Software Used: Adobe Dreamweaver

WSD 313 Introduction to SQL

This course will examine the basic principles in creating and interacting with a relational database, namely Microsoft SQL Server. We will explore creating tables and views as well as relationships between them as well as the SQL language.

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Upon completion of this course, you will have:

- Learned PHP functions for manipulating SQL databases
- Created Add, List, Edit, and Delete forms for updating SQL data
- Validated user input with PHP functions
- Converted data from SQL databases to XML
- Interpreted requests from Flash and Javascript applications for XML data

Software Used: Microsoft SQL Server Management Studio Express

WSD 314 Intermediate PHP and SQL

This course will build on WSD312 but will incorporate the SQL knowledge from WSD313. By being able to use PHP as an intermediary between Flash and SQL Server, participants have a foundation for creating data driven web applications.

Upon completion of this course, you will have:

- Used PHP to manipulate data in a SQL server
- Used PHP to interpret Requests from Presentation layer elements such as Flash and Javascript
- SQL Overview
- PHP MySQL Functions
- PHP Form Validation
- Add Page with Insert Query
- List Page with Select Query
- Delete Page with Delete Query
- Edit Page with Update Query
- SQL to XML Export

Software Used: Adobe Dreamweaver

WSD 315 ActionScript 3.0 Capstone Class

This course brings all the knowledge from the previous five classes together and culminates in a completed web application that brings together all three layers of the architectural format: Model (SQL Server), Controller (PHP) and view (Flash).

Upon completion of this course, you will have:

- The knowledge to develop small to medium RIA web applications
- Created a PHP - Flash email interface
- Demonstrate the ability to connect to back end data source using Flash as the presentation layer
- Exposure to Flex as a alternative Flash development tool
- Used Flex to re-build the RSS feeder to understand the differences in development

Software Used: Adobe Flash, Adobe Flex, Adobe Dreamweaver, Microsoft SQL Server Management Studio Express

***Subject to Change**