

**Virginia Western Community College**  
**ITP 225**  
**Web Scripting Languages**

**Prerequisites**

ITP140, ITD110, ITD130

**Course Description**

Introduces students to the principles, systems, and tools used to implement Web applications. Provides students with a comprehensive introduction to the programming tools and skills required to build and maintain interactive Web sites. Students will develop Web applications utilizing client-side and server-side scripting languages along with auxiliary tools needed for complete applications.

**Semester Credits: 3    Lecture Hours: 3    Lab/Clinical/Internship Hours: 0**

**Required Materials****Textbook:**

PHP and MySQL for Dynamic Web Sites, 4th edition by Larry Ullman, ISBN 978-0-321-78407-0

**Other Required Materials:**

NetBeans and xampp (latest versions – available for download from the Internet)

**Course Outcomes**

**At the completion of this course, the student should be able to:**

- Be able to review and program using the introductory topics from ITD110 and ITP140
- Be able to create simple PHP programs
- Understand constructs of the PHP language
- Understand how to debug PHP applications
- Be able to work with arrays (associative and indexed)
- Be able to create HTML forms, and respond to the forms with PHP
- Understand how to make PHP forms sticky
- Be able to create a MySQL driven web site
- Understand common programming techniques for adding, deleting, editing, and sorting database output
- Understand how to use cookies and sessions
- Be able to code to prevent XSS and SQL Injection attacks

- Describe XML applications and analyze their strengths and weaknesses, relative to other technologies.
- Develop DTD's and XML Schema's for XML languages.
- Build applications that utilize custom XML languages and XSLT programming
- Be able to code applications that combine, jQuery, Ajax, and PHP
- Understand web security topics
- Be able to work with PHP classes and objects and understand the singleton design pattern.

## **Topical Description**

Module 1: Review of XHTML, Forms, CSS, JavaScript, and an Intro to PHP

Module 2: Forms and form validation

Module 3: MySQL Database Review, Error Handling, and Intro to PHP Database

Module 4: Creating Dynamic Web Sites with MySQL

Module 5: Cookies and Sessions

Module 6: File Uploads, JavaScript, Headers, Security Issues

Module 7: XML - DTD's & Schemas, XPath Expressions, XSLT Transformations, Namespaces, and XML Integration

Module 8: Ajax, jQuery and DOM integrated into an E-Commerce application

## **Notes to Instructors**

- Each module is two weeks long and requires both a quiz and a laboratory assignment submitted through Blackboard
- A midterm exam is optional
- A semester long project is required
- A comprehensive final may be used in lieu of the project