



**DEPAUL UNIVERSITY**

**COLLEGE OF COMPUTING AND DIGITAL MEDIA**

*Institute for Professional Development*

## **SHAREPOINT DEVELOPER PROGRAM**

A ten-week comprehensive program covering Microsoft SharePoint® development

DePaul University's SharePoint Developer Program is designed to provide .NET programmers with an intensive and comprehensive introduction to the core technologies of Microsoft SharePoint 2010. The program exposes students to SharePoint architecture and the use of SharePoint as a development platform for building customized solutions focusing on SharePoint as a collaboration framework and content management system.

Classroom lectures and demonstrations will be complemented by reading and programming assignments. The student will be provided with several hosted environments, a virtual machine, and supporting tools enabling the student to develop and test applications from his or her own computer.

### **YOU WILL LEARN:**

- .NET refresher
  - .NET framework
  - Assemblies
  - Versioning and the Global Assembly Cache (GAC)
  - Code Access Security
  - ADO.NET
  - Windows Identity Foundation
- ASP.NET for SharePoint
  - Master and layout pages
  - Web Parts framework
  - Page life cycle
  - Component development
  - Web Services
  - LINQ to SharePoint
- SharePoint end user experience
  - Basic site provisioning
  - Security
  - Lists/External lists
  - Document libraries
  - Branding
  - Ribbon /Dialog API
- SharePoint architecture
  - Client and Server Object model programming
  - REST (WCF Data Services)
  - Workflow development
  - Content types
  - Events
  - Document/list programming
  - Site definitions
  - Feature and solution development
  - Sandboxed solutions
- Content management
  - Web publishing
  - Document/Document Set management
  - Reporting and dashboards
  - Business Connectivity Services
  - Business process management

# SHAREPOINT DEVELOPER PROGRAM

SharePoint 2010 is Microsoft's central technology for connecting people and business processes. For the programmer, it provides a set of reusable tools that can be customized to build enterprise-level, collaborative applications. These tools include sites, lists, document libraries, workflows, event handlers, and enterprise search. It also provides a base-level functionality out of the box, which can be used to generate websites quickly. These websites can range from read-only, public-facing, marketing-driven websites to small-team collaboration sites to complex data-driven portals.

SharePoint is a framework for building business applications that encourage user collaboration and information sharing. The framework manages, in a unified manner, the backed data stores found within the typical enterprise. Building off ASP.NET, SharePoint allows organizations to leverage their existing .NET investments and expertise into the realm of portals, content management, and workflow.

The goal of the SharePoint Development Program is to give the student a complete working knowledge of SharePoint from the end user perspective to its core APIs. The program will begin with an overview of the various product editions and their features as well as a refresher of the .NET 2.0+ fundamentals that SharePoint is built upon. The program will then provide in-depth coverage of the core development constructs of SharePoint to enable the student to understand how the pieces fit together in common use cases. Finally, the program will expose the student to current development trends and how they will carry over into the next release of the product, SharePoint 2010.

Students in the SharePoint Developer Program are expected to do a considerable amount of work outside of class. The software provided enables the student to maximize learning opportunities. Instructors will be accessible in person and through e-mail.

## CURRICULUM

The following topics are covered in the program. Each unit involves reading and assignments. All work can be done with the software provided.

## YOUR LEARNING ENVIRONMENT

Program overview. Computing environment available to students and software distribution.

## OVERVIEW OF SHAREPOINT

Tour of SharePoint. Windows SharePoint Foundation vs. Microsoft SharePoint Server.

Creating and managing sites and permissions, etc.

Lists: Announcements, Calendar, Contacts, Discussions, Link Lists, Task Lists.

Document Libraries: standard libraries, form libraries, picture libraries, Wikis.

Overview of Windows and Office integration.

Introduction to SharePoint Designer.

Workflows: out-of-the-box templates; custom workflows with SharePoint Designer.

Web Parts: out-of-the-box Web Parts; adding Web Parts to a site.

## ASP.NET DEVELOPMENT FUNDAMENTALS

Visual Studio and C# refresher. Projects and solutions.

ASP.NET overview: Web projects, the debugger, data binding.

Page lifecycle.

Building and signing components (.ascx and .dlls). Global Assembly Cache. Consuming and using Web Services. Code access security.

XML/XSLT.

Master pages. ASP.NET Web Parts.

## SHAREPOINT ARCHITECTURE

Building and working within a development environment. SharePoint architecture (site collections, sites, Webs). SharePoint Client and Server Object Model.

## **ADVANCED SHAREPOINT DEVELOPMENT**

Collaborative Markup Language (CAML). XSLT (Extensible Stylesheet Language Transformations).

Content types. Event handlers: lists and site level; timer jobs.

Site branding and customization. Creating and applying themes. Regional settings. Ghosted and unghosted pages.

Custom workflows. Programming Web Parts.

LINQ to SharePoint.

Site definitions and custom fields.

Building Features. Types of Features. Activation. Scope Features. Dependencies. Deploying.

Building solutions for deployment.

Publishing Web template. Customizing a Web template. Forms authentication and building custom navigation providers.

Content management.

Sandboxed solutions.

Business Connectivity Services, external lists, and related Web Parts.

## **FUTURE TRENDS**

Windows Identity Foundation. Claims-based authentication and authorization.

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## **GENERAL INFORMATION**

### **ADMISSION**

Applicants must have a solid programming background (at least two years of professional experience is preferred), including some experience building dynamic websites using ASP.NET and C#, and knowledge of basic HTML/CSS.

A substantial commitment of time is required for this intensive course of study. Acceptance into the program will be determined by the admissions committee on the basis of an applicant's overall qualifications, including work history and educational background.

### **FACILITIES**

To promote the learning process, the Institute maintains special-purpose laboratories as well as dedicated classrooms equipped with state-of-the-art audio/visual equipment.

In addition, the college's unique Course OnLine (COL) technology allows students to replay classes over the Internet. COL captures and replays five components of the classroom experience—audio, video, PC screen, whiteboard, and document camera input—and incorporates them into one interface to provide an innovative rebroadcast system.

### **CLASSES**

The Institute offers one section of the program each quarter. Classes meet on Tuesday and Thursday evenings.

### **FACULTY**

The faculty consists of a team of instructors from the College of Computing and Digital Media and experts from industry. Faculty will be available throughout the program both in person and through e-mail.

## **COLLEGE OF COMPUTING AND DIGITAL MEDIA**

The college, through its School of Computing and its School of Cinema and Interactive Media, offers a variety of programs at the undergraduate and graduate levels. Over 1,000 students are enrolled in the college's bachelor's programs and over 2,000 students are enrolled in the master's and Ph.D. programs making the college's graduate program one of the largest in the country. The college offers more than 200 courses each quarter, many in the evening, in several locations: the Loop Campus, the Lincoln Park Campus, the O'Hare Campus, the Naperville Campus, and the Rolling Meadows Campus. Many of the degree programs are also available exclusively online.

Current programs at the undergraduate level include:

Animation	Information Assurance and Security Engineering
Computer Games Development	Information Systems
Computer Graphics and Motion Technology	Information Technology
Computer Science	Interactive Media
Computing	Math and Computer Science
Digital Cinema	Network Technology

Current programs at the graduate level include:

Applied Technology	Digital Cinema
Business Information Technology	E-Commerce Technology
Computer Games Development	Human-Computer Interaction
Computer Graphics and Motion Technology	Information Systems
Computer Science	Information Technology
Computational Finance	IT Project Management
Computer Science Technology	Network Engineering and Management
Computer Information and Network Security	Predictive Analytics
Computer and Information Sciences (Ph.D.)	Software Engineering

## **INSTITUTE FOR PROFESSIONAL DEVELOPMENT**

The Institute for Professional Development was formed by the college in 1984 to assist both individuals and businesses in keeping pace with the rapid development of computer technologies. The Institute currently offers a variety of intensive certificate programs in these areas:

- Advanced SQL
- Cloud Computing Fundamentals
- Cloud Computing with Amazon Web Services®
- IPv6
- IT Project Management
- Java™ Developer
- Java™ Web Services
- Lightweight Java™ Web Development
- .NET Developer
- Ruby on Rails®
- SharePoint® Developer Program
- SQL Server® Business Intelligence
- SQL Server® Database Administration
- Web Development with Ajax Technologies
- Web Development with Python®
- Wireless LAN Security Program

## **APPLICATION PROCEDURE:**

Complete the enclosed application and return it with a non-refundable \$40.00 application fee (check or money order made payable to DEPAUL UNIVERSITY) to:

DePaul University  
SharePoint Developer Program  
Institute for Professional Development  
243 S. Wabash Avenue, Room 301  
Chicago, IL 60604-2300