

**IUPUI**  
**DEPARTMENT OF COMPUTER  
INFORMATION AND  
GRAPHICS TECHNOLOGY**  
**SCHOOL OF ENGINEERING AND TECHNOLOGY**  
A Purdue University School  
Indianapolis

## **Ecommerce Development Certificate**

*AVAILABLE 100% ONLINE*

The E-Commerce Development Certificate will enable you to upgrade your current application development skills to Web-based platforms. Interested students should have at least two to three years of application development experience or have completed the IT Certificate for Web Development. Upon completion of the E-Commerce Development Certificate, students will have the skills and knowledge to build and maintain data driven e-commerce sites.

The E-Commerce Development Certificate consists of two tracks:

- ASP.NET Track: This track will focus on developing Web sites that utilize the Microsoft .Net Framework.
- Java Track: This track will focus on developing Web sites that utilize Java Beans and Java Server Pages.

### **Required Courses**

*Must be completed with C or better*

<b>Course</b>	<b>Title</b>
CIT 21300	Systems Analysis & Design
CIT 31200	Advanced Web Site Design
CIT 41200	XML-Based Web Applications
CIT 43600	Adv. E-Commerce Development

### **ASP.NET Track**

<b>Course</b>	<b>Title</b>
CIT 24200	Introduction to ASP.Net Programming
CIT 34700	Advanced ASP.Net

### **Java Track**

<b>Course</b>	<b>Title</b>
CIT 27000	Java Programming
CIT 38800	Java Programming II

## Admission

Candidates for this certificate are required to be formally admitted by the IUPUI Office of Admissions, but not required to be a student in the Purdue School of Engineering and Technology. To earn the certificate, students must contact the department to complete paperwork to add the degree to their program plan of study before they enroll in the last semester or sooner. Credits earned while completing this certificate may be applied to a B.S. degree in Computer & Information Technology.

## Course Descriptions

**CIT 21300 Systems Analysis and Design** (3 cr.) P: (CIT 14000 or CIT 21500) and CIT 21400. Class 3. This course provides students with the concepts, processes, and tools of systems analysis and systems design. Object-oriented methods and tools are utilized with a focus on developing web-based interfaces and prototypes.

**CIT 31200 Advanced Web Site Design** (3 cr.) P: CIT 21200 and any 200 level programming course. Class 2, Lab 2; or Class 3. This course covers the tools and techniques necessary to maximize the effectiveness of deploying e-commerce Web applications and address both client and server side strategies with a focus on optimal Web design strategies. Strategies focus on internal design issues such as security, reusability, usability, accessibility and architecture and external design issues such as user interfaces, load times and multimedia.

**CIT 41200 XML-Based Web Applications** (3 cr.) P: CIT 21200 and CIT 200 level programming course. Class 2, Lab 2; or Class 3. This course covers how to build web applications using XML. Students will learn how to create and validate data in XML documents and how to display XML documents using Cascading Stylesheets (CSS), XSL Transformations (XSLT), and the Document Object Model (DOM).

**CIT 43600 Advanced E-Commerce Development** (3 cr.) P: CIT 31200 and (CIT 31300 or CIT 32900 or CIT 34700). Class 2, Lab 2; or Class 3. This course will allow students the opportunity to develop a data-driven e-commerce site for a small- to medium-sized company.

**CIT 24200 Introduction to ASP.Net Programming** (3 cr.) P: (CIT 14000 or CIT 21500) and CIT 21200 and CIT 21400. Class 2, Lab 2; or Class 3. This course will provide students with the tools and techniques to build dynamic Web sites using the ASP.Net programming environment. Students gain hands-on experience building a database-driven Web site.

**CIT 34700 Advanced ASP.Net** (3 cr.) P: CIT 24200. Class 2, Lab 2; or Class 3. This course will apply the ASP.Net framework to e-commerce applications. Advanced ASP.Net techniques will be covered such as web services, ADO, LINQ, AJAX, and security components.

**CIT 27000 Java Programming** (3 cr.) P: (CIT 14000 or CIT 21500) and CIT 21400. Class 3. This course is an introduction to the Java programming language. Students will learn the syntax of the language, how to use objects, classes, and methods, and will perform programming exercises that illustrate how Java is used in stand-alone applications and applets.

**CIT 38800 Java Programming II** (3 cr.) P: CIT 27000. Class 2, Lab 2; or Class 3. This course continues the study of Java to include advanced object-oriented system development techniques. Students learn to create classes, user interfaces and data access programs. By the end of the course students will be able to design and build advanced applications in Java.

## Administration of Program

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