IUPUI

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

Computer & Information Technology's
IT Certificate
(Web Development Emphasis)
AVAILABLE 100% ONLINE

The IT Certificate for Web Development is a primer on the principles and techniques used to develop Web-based applications. The six course series covers the application development life cycle, including analysis, design, coding, and implementation, all applied within a Web environment.

This certificate will provide you with the skills and knowledge to become an entry-level Web application developer.

Students are required to successfully complete a total of six courses (18 credit hours) to earn the certificate. No more than 9.0 units of transfer credit can be applied towards this certificate. A certificate will be presented to those who successfully complete all course work.

Required Courses
Must be completed with C or better

Course	Title	Credit Hour
CIT 21200	Web Site Design	3
CIT 21300	Systems Analysis & Design	3
CIT 21400	Introduction to Data Management	3
CIT 21500	Web Programming	3
CIT 31200	Advanced Web Site Design	3
CIT 31300	Commercial Web Site Development	3

For course descriptions and prerequisite, please see reverse side.

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 degree in Computer & Information Technology. Applications for graduation must be completed one semester prior to completion of the required curriculum.

Course Descriptions

CIT 21200 Web Site Design (3 cr.) P: CIT 11200 or computer literacy. Class 3. This course is designed to give students an introduction to web site design and site creation. The course involves learning current standard XHTML fundamentals, CSS and design concepts. The proper design approach for constructing Web sites and related techniques will also be covered.

CIT 21300 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 21400 Introduction to Data Management (3 cr.) P: CIT 11200 or CIT 12000 or Math-M118 or MATH 15400 or MATH 15900 or ECET 10900. Class 3. Introduction to basic database development concepts. Extensive exploration of data manipulation using a relational DBMS and SQL. Students develop database applications using the most current database technologies.

CIT 21500 Web Programming (3 cr.) P: CIT 21200 and P or C: CIT 21400. Class 3. This course will provide students with the knowledge and techniques of a variety of Web programming languages. Both client and server side languages will be examined.

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 31300 Commercial Web Site Development (3 cr.) P: CIT 21500. Class 3. This project-based course will have students develop a data driven web site to support business processes. Students will utilize both client and server side languages in developing the site.

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