

WEB DEVELOPMENT, UNDERGRADUATE CERTIFICATE

The Web Development Certificate is designed to offer students the opportunity to complement their major field of study with an additional concentration in web programming. This certificate is also available to those who have already graduated.

Requirements

At least 8 credits must be completed at UWM. The student must maintain a minimum GPA, as specified by department, in courses used to complete the certificate. No course may be taken on a credit/no credit basis.

The 18-credit certificate requires the following:

Code	Title	Credits
Computer Programming		
Select one of the following:		3-4
COMPSCI 202	Introductory Programming Using Python	
COMPSCI 351	Data Structures and Algorithms	
Web Documents		
Select one of the following:		3
ART 325	Web Design II	
COMPSCI 113	Introduction to Web Document Production	
INFOST 320	Web Design II	
Web Programming		
Select one of the following:		3
COMPSCI 361	Introduction to Software Engineering	
COMPSCI 481	Server-side Internet Programming	
Web Applications - Required Course		
COMPSCI 482	Rich Internet Applications	3
Electives		
Select 6 credits (see below)		6
Total Credits		18-19

Electives

Code	Title	Credits
Electives (6 credits)		
Select 2 courses from the following list:		
ART 218	Moving Images and Sound in Art & Design	3
ART 224		3
ART 325	Web Design II	3
BUS ADM 531	Developing Applications for Interconnected Systems	3
BUS ADM 532	Web Development for Open Business Systems	3
COMMUN 313	Human Communication and Technology	3
COMMUN 413	Rhetoric and the Internet	3

COMPSCI 112	Introduction to the Internet and the World Wide Web	3
COMPSCI 150	Survey of Computer Science	3
COMPSCI 425	Introduction to Data Mining	3
COMPSCI 444	Introduction to Text Retrieval and Its Applications in Biomedicine	3
COMPSCI 469	Introduction to Computer Security	3
COMPSCI 530	Computer Networks Laboratory	3
COMPSCI 552	Advanced Object-Oriented Programming	3
COMPSCI 557	Introduction to Database Systems	3
CURRINS 530	Workshop in Computer Instruction in the Schools	3
CURRINS 547	Curricular Applications of the Internet	3
ENGLISH 439	Information Design	3
HCA 444	Introduction to Text Retrieval and Its Applications in Biomedicine	3
HCA 542	Healthcare Database Design and Management	3
INFOST 325	Information Security I	3
INFOST 370	Data Analysis and Visualization for the Information Professional	3
INFOST 375	Multimedia Web Design	3
INFOST 685	Electronic Publishing and Web Design	3