

## Web Development Certificate

### WEB DEVELOPMENT CERTIFICATE REQUIREMENTS:

- 15 credits from the approved courses below; no more than 6 credits can overlap with a students major
- Obtain a 2.50 GPA in courses used to complete the certificate
- At least 8 credits must be completed at UWM.
- No course may be taken on a credit/no credit basis
- Students may count no more than 6 credits from a major towards the Web Development certificate

### PRE-REQUISITE COURSES

Math 105 Intermediate Algebra  
Comp Sci 201 Introduction to Computer Programming  
Comp Sci 251 Intermediate Programming

### REQUIRED COURSES-15 CREDITS

**Web Documents** (3 credits)-Must complete at least ONE of the following

Course	Prerequisite	
Comp Sci 113	Web Document Production OR	None
Comp Sci 581	Web Languages and Standards OR	Jr St, Comp Sci 417, 431
L&I Sci 685	Electronic Publishing & Web Design	Jr St

**Web Programming** (6 credits)

Comp Sci 481 Server-side Internet Programming  
Comp Sci 482 Rich Internet Applications

**Electives** (6 Credits)

Art 218	2D Design Strategies	None
Art 224	Dynamic Typography	Art 101 (P), 108(P), & 118(P); or pre-Inter-Arts/IAT prog.
Art 324	Web Design	Admission to Visual Art prog or pre-Inter-Arts/IAT prog, & Art 118(P); or grad st; or cons instr.
Art 325	Multimedia Design	Admission to Visual Art prog or Inter-Arts/IAT prog, & Art 221(228)(P); or 350(P); or 393(293)(P), & 324(R); or grad st; or cons instr.
Bus Adm 531	Developing Web Applications Using Web Services	Jr St,Bus Adm 432
Bus Adm 532	Web Development for Open Business Systems	Jr st, Bud Adm 432
Commun 313	Human Communication and Technology	Jr St; satisfaction of GER English Composition competency req; or cons instr.
Commun 413	Rhetoric and the Internet	
Comp Sci 112	Introduction to the Internet and WWW	
Comp Sci 351	Data Structures & Algorithms	Math Placement Code of 40 or Math 116(P) or 211(P); C or better in Comp Sci 251(P). Enroll in LEC 401 & any LAB 801-804.
Comp Sci 361	Introduction to Software Engineering	Comp Sci 140(R), C or better in Comp Sci 251(P), satisfaction of GER English Composition competency req
Comp Sci 425	Introduction to Data Mining	Jr St
Comp Sci 444	Intro to Text Retrieval & its Applications in Biomedicine	Jr St; Comp Sci 351(P) or HCA 442(P)
Currins 530	Workshop in Computer Instruction in the Schools	Jr St
Currins 547	Curricular Applications of the Internet	Jr St and admissions to the major
English 439	Document Design	Jr St; English 205(P), 206(P), or 207(P), or cons instr.
HCA 444	Intro. to Text Retrieval and its Applications in Biomedicine	Jr St; Comp Sci 351(P) or HCA 442(P)
HCA 542	Healthcare Database Design and Management	HCA 541(441)(P) or L&I Sci 340(P)
L&I Sci 110	Introduction to Information Studies	None
L&I Sci 240	Information Architecture I	L&I Sci 230(C)
L&I Sci 310	Human Factors in Information Seeking and Use	L&I Sci 110(C)
L&I Sci 410	Database Information Retrieval Systems	Jr St

Prerequisite coursework may be required. It is important that you meet with an advisor to ensure you understand all requirements.  
For more information or to declare a Web Development Certificate,  
contact the CEAS Student Services Office at 414-229-4667 or in EMS E386.