

GRADUATE
Certificate in
Internet and Web



UMSL is a NSA/DHS National Center of Academic Excellence in Cyber Defense Education



College of Arts and Sciences

Department of Computer Science

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Graduate Certificate in Internet and Web



The graduate certificate in Internet and Web is a four-course (12 credit-hours) program. It is designed to provide broad training in web technologies at both the client and server sides, including various stack architectures and frameworks, recent technologies such as REST and trends such as microservices. All students must take three required courses and one elective, subject to the [graduate school regulations](#).

A minimum of three courses must be taken from UMSL. A maximum of two courses can be used from the 4000-level. Courses may be substituted with the permission of the certificate coordinator.

Required core courses		Availability
CMP SCI 4010	Advanced Web Development with Java	FP
CMP SCI 4011	Web Development with Advanced JavaScript	P
CMP SCI 5012	Enterprise Web Development	P
Choose one of the electives		
CMP SCI 5020	Android Apps: Android Fund.	P
CMP SCI 5030	Intelligent Web	E
CMP SCI 5750	Cloud Computing	F
CMP SCI 5792	Mobile Computing, Networking, and Security	P
CMP SCI 5794	Security of IoT Systems	F
Total courses (credit hours)		4(12)

For more information visit umsl.edu/cs. For career information visit umsl.edu/cs/careers.

For electronic version of this document and more info visit <http://www.umsl.edu/cs/certificates>

Availability: Summer (S), Fall (F), Spring (P)

Mode: Online  Evening 

For course rotation visit <https://www.umsl.edu/cmpsci/graduate-studies/3yeacourse.html>