## **Certificate in Mobile Apps and Ubiquitous Computing**

The undergraduate Certificate in Mobile **Apps** and Ubiquitous Computing is a six-course (18 credit hours) program. It is designed to provide training in technologies and framework for mobile apps and computing. A minimum GPA of 2.5 is required for admission.

Required Courses:		
CMP SCI 3010	Web Programming	3
CMP SCI 4020	Introduction to Android Apps: Android	3
CMP SCI 4220	Introduction to iOS Programming and Apps	3
CMP SCI 4222	iOS Apps	3
CMP SCI 4710	Mobile and Ubiquitous Computing	3
Choose one two of the following:		<del>3</del> 6
CMP SCI 4010	Advanced Web Development with Java	
CMP SCI 4610	Database Management Systems	
CMP SCI 4750	Introduction to Cloud Computing	
Total Hours		18

A minimum of four courses must be taken in residence in the Department of Mathematics and Computer Science at UMSL. Courses may be substituted with the permission of the department. For more information, students can contact the department chair or email info@arch.umsl.edu.

Sign-offs from other departments affected by this proposal

None

Rationale Renaming because most of the courses are on app development. Cmp SCi 3010 not essential. Cmp Sci 4792 renumbered from 4710.