

WEB DEVELOPMENT - ASSOCIATE IN SCIENCE

² Elective units from course(s) numbered 1-599, if needed, to reach 60 degree-applicable units.

Plan Code: 2128

Students will learn relevant and current web technologies including HTML, CSS, JavaScript/jQuery and database concepts. Other topics include mobile web application development, responsive design, accessibility and user-centered design. This program is designed to prepare students for employment in Web Development related fields including both front-end development and back-end development. Students interested in a bachelor's degree (transfer program) should meet with a counselor to discuss how this program fully articulates with other schools.

Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Create websites by employing several web design tools and programming languages including HTML, CSS, JavaScript, SQL, and PHP.
- Demonstrate and apply effective web development skills for a variety of industries and organizational situations.

Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
REQUIRED COURSES		
COSP 7	Programming Concepts and Methodologies	4
COSP 38	Database Concepts	4
COSW 10	Beginning Website Development	4
COSW 20	Front End Website Development	4
COSW 30	Web Development with PHP/MySQL	4
COSW 200	Introduction to JavaScript	4
COSW 230	Web Development Frameworks	4
COSW 240	Intro to Content Management Systems	3
Required Subtotal		31
Complete one of the following: ¹		19-39
LBCC General Education (Plan A) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/)		
CSU GE Breadth (Plan B) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/)		
IGETC Pattern (Plan C) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/)		
Electives (as needed to reach 60 degree-applicable units) ²		
Minimum Degree Total		60

¹ Units for the major may be double-counted for LBCC GE, CSU GE, or IGETC; see counselor for limitations.

WEB DEVELOPMENT-FULL STACK - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3128

This program is designed to prepare students for beginning employment in Web Development related fields in both front-end development and back-end development. Topics include modern website development, responsive design, best practices, database-driven web applications, accessibility and user-centered design.

Program Student Learning Outcomes

- Create websites by employing several web design tools and programming languages including HTML, CSS, JavaScript, SQL, and PHP.
- Demonstrate and apply effective web development skills for a variety of industries and organizational situations.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
COSP 7	Programming Concepts and Methodologies	4
COSP 38	Database Concepts	4
COSW 10	Beginning Website Development	4
COSW 20	Front End Website Development	4
COSW 30	Web Development with PHP/MySQL	4
COSW 200	Introduction to JavaScript	4
COSW 230	Web Development Frameworks	4
COSW 240	Intro to Content Management Systems	3
Total Units		31

FRONT END WEB DEVELOPER - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3134

Students will learn modern web development skills including HTML, CSS, JavaScript, and responsive design for a variety of screen sizes.

Program Student Learning Outcomes

- Create websites by employing several web design technologies and programming languages including Responsive Design using HTML and CSS, JavaScript, web frameworks, and WordPress CMS.
- Demonstrate and apply effective web development skills for a variety of industries and organizational situations.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
COSW 10	Beginning Website Development	4
COSW 20	Front End Website Development	4
COSW 200	Introduction to JavaScript	4
COSW 230	Web Development Frameworks	4
COSW 240	Intro to Content Management Systems	3
Total Units		19

PHP WEB PROGRAMMER - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3138

This program provides students with entry-level back-end web programming skills to build data driven website applications using HTML, CSS, PHP, and SQL languages.

Program Student Learning Outcomes

- Design, run, and analyze new and existing SQL programs according to commonly practiced industry standards.

Program Requirements

Code Number	Course Title	Units
COSP 38	Database Concepts	4
COSW 10	Beginning Website Development	4
COSW 30	Web Development with PHP/MySQL	4
COSW 200	Introduction to JavaScript	4
Total Units		16

ANDROID APP DEVELOPER - CERTIFICATE OF ACCOMPLISHMENT

Plan Code: 4119

Students will learn programming skills in Java or C++, Android App Development, and Database hands-on concepts.

Program Student Learning Outcomes

- Demonstrate the ability to create, design, and implement java-based Android applications (apps) using the Android API.
- Show the skills to create, manage, and use databases and SQL for Android applications (apps).
- Be able to complete the full development process for Android Applications (apps).

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
CS 11	Introduction to Computer Science- C++	3
or CS 21	Introduction to Computer Science-Java	
or CS 31	Introduction to Computer Science-Python	
COSP 230	Android App Development in Java	3
Total Units		6