WEB DEVELOPMENT
Curriculum Guide for Academic Year 2021-2022

LONG BEACH CITY COLLEGE

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Students planning to **transfer** to a four-year college or university should refer to the ASSIST web site at www.assist.org and **consult a counselor** before beginning a program of study. Please call 562-938-4561 (LAC), or (562) 938-3920 (PCC) to schedule an appointment with a counselor. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to:
Associate in Science (A.S.) Degree

WEB DESIGN COURSES		UNITS	In Progress	Completed Grade
COSA 50	Intro to IT Concepts and Applications	4		
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 and jQuery	4		
COSW 240	Intro to Content Management Systems	3		
	TOTAL	31		

For graduation with an **Associate in Science (A.S.) Degree with a major in Web Development:**

1. **Units**: Complete a minimum of 60 units, distributed as follows:

    Web Development Units   31 Units
    General Education/A.A.   25 Units

2. **Scholarship:** Maintain an **overall grade point average (GPA) of 2.0** ("C" average) based on all accredited college work applied to the degree, no matter where completed. For this **field of concentration, complete each course above** with a **grade of "C" or better**, or "P" if course is graded on a P/NP basis.
3. **Residence for the Degree:** Complete at least 12 semester units of the required 60 semester units in residence at Long Beach City College in order for the college to grant an Associate of Arts and/or an Associate of Science Degree.
4. **Residence for the Field of Concentration**: Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 15.5 units** of the 31 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
5. **General Education and Proficiency Requirements:** Complete the required A.A./A.S. General Education and Proficiency requirements*, otherwise known as "Plan A". For Plan A requirements, refer to the general catalog or view it online at http://osca.lbcc.edu .
6. Complete and submit the degree application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

*The requirements for general education/proficiency and the field of concentration (major) need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout. See the catalog for definition of "continuous enrollment".

Departmental Phone: 562-938-4904, Website: www.lbcc.edu/COS
Information on this sheet is subject to change without notice. Any updates to this guide are posted at http://osca.lbcc.edu .

Program of study leading to:
Certificate of Achievement in Web Development

REQUIRED COURSES—Complete the 31 units of required courses as listed in the Associate Degree requirements box on the first page.

REQUIRED COURSES		In Progress	Completed
TOTAL UNITS	**31**		

For graduation with a **Web Development Certificate of Achievement:**
1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of "C",** or better, or "P" if course is graded on a P/NP basis**.**
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 15.5 units** of the required **31** must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

Program of study leading to:
Certificate of Accomplishment

Certificate: Android App Developer 4119
***Note**: Students will learn programming skills in Java or C++, Android App development and Database hands-on.*

REQUIRED COURSES		UNITS	In Progress	Completed Grade
CS 21 **OR**	Introduction to Computer Science- Java **OR**	4 **OR**		
CS 11 **OR**	Introduction to Computer Science– C++	4 **OR**		
CS 31	Introduction to Computer Science- Python	4		
COSP 230	Android App Development in Java	3		
	TOTAL UNITS	**7**		

Certificate: PHP Web Programmer Certificate 4129
Note: Students will learn how to build robust web applications with PHP and MySQL.

REQUIRED COURSES		UNITS	In Progress	Completed Grade
COSP 38	Database Concepts	4		
COSW 10	Beginning Website Development	4		
COSW 30	Web Development with PHP/MySQL	4		
COSW 200	Introduction to JavaScript and jQuery	4		
	TOTAL UNITS	**16**		

Certificate: Web Developer 4131
Note: *Students will learn modern web development skills including HTML, CSS, JavaScript, and responsive design for a variety screen sizes.*

REQUIRED COURSES		UNITS	In Progress	Completed Grade
COSW 10	Beginning Website Development	4		
COSW 20	Front End Website Development	4		
COSW 200	Introduction to JavaScript and jQuery	4		
	SUBTOTAL UNITS	**12**		

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Choose FOUR (4) Units from the following courses:

REQUIRED COURSES		UNITS	In Progress	Completed Grade
COSP 201	Intro to Mobile App Development	1		
COSW 30	Database Programming with PHP/MySQL	3		
COSW 230	Web Development Frameworks	4		
COSW 240	Intro to Content Management Systems	3		
	TOTAL UNITS	**16**		

For graduation with a **Certificate of Accomplishment:**
1. Complete the above required courses with a minimum grade of "C", or "P" if course is graded on a P/NP basis.
2. Fifty percent (50%) or more of the required units must be completed in residence at LBCC.

Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu

Career Opportunities

This **Associate Degree or Certificate of Achievement** is a two-year program leading to the Associate in Science (A.S.) degree. It is designed to prepare students for employment in a Web Development related fields. Students wishing a bachelor's degree (transfer program) should meet with a counselor to discuss how this program full articulates with other schools.

Program Mission and Outcomes

The mission of the web development program is to prepare students for careers as Web Design developers and enhance skills for those who are currently employed in the industry.

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

Outcomes (Certificate of Accomplishment – Android App Developer)
- Demonstrate the ability to create, design, and implement java based Android application (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).

Outcomes (Certificate of Accomplishment – PHP Web Programmer):
- Design, run, and analyze new and existing SQL programs according to commonly practiced industry standards.

Outcomes (Certificate of Accomplishment – Web Developer):
- Create websites by employing several web design tools and programming languages
- Demonstrate and apply effective web development skills for a variety of industries and organizational situations.

Legend

† This course has a prerequisite. Prerequisite courses must be complete with at least a "C" or "P" grade. Refer to the General Catalog (http://www.lbcc.edu/cat/index.html), the Schedule of Classes (http://schedule.lbcc.edu/), or the online Credit Course Outline (http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/) for specific prerequisite information.