

# DATABASE MANAGEMENT

## Curriculum Guide for Academic Year 2016-2017

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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](http://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. Students may also wish to visit the Transfer Center on either campus.

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

<b>DATABASE MANAGEMENT COURSES</b>		<b>UNITS</b>	<b>In Progress</b>	<b>Completed Grade</b>
BCOM 15	Business Communications	3		
COSA 25	Microsoft Access for Windows	4		
COSP 7	Programming Concepts and Methodologies	4		
COSP 36	System Analysis and Design	4		
COSP 38	Database Concepts	4		
COSP 238	Advanced Database Concepts	3		
COSW 220	Web Development with PHP/MySQL	4		
<b>Subtotal Units</b>		<b>26</b>		
<b>IN ADDITION, select TWO (2) courses from the following:</b>		<b>UNITS</b>	<b>In Progress</b>	<b>Completed Grade</b>
COSA 210	Introduction to Project Management for IT	3		
COSN 205	UNIX/LINUX Fundamentals	4		
COSN 225	Microsoft Windows Client	3		
COSN 230	Microsoft Windows Server	4		
<b>Subtotal Units</b>		<b>6-8</b>		
<b>TOTAL UNITS</b>		<b>32-34</b>		

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

- Minimum Unit Requirements:** §Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate Degree.

**Database Management Units 32-33 Units**  
**General Education/A.S. § 19 Units**

- 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.
- 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.
- 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 16-16.5 units** of the 32-33 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".

**Program of study leading to:  
Certificate of Achievement**

**REQUIRED COURSES**—Complete the 33 units of required courses as listed in the Associate Degree requirements box.

**TOTAL UNITS 32-34**

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For graduation with a **Database Management Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of "C"**.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 16-17 units** of the required **32-34 units** 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:  
Certificates of Accomplishment**

**Certificate: Database Specialist 4080**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
COSA 25	Microsoft Access for Windows	4		
COSP 38	Database Concepts	4		
COSP 238	Advanced Database Concepts	3		
<b>TOTAL UNITS</b>		<b>11</b>		

**Additional Requirements:** Minimum GPA of 3.0 or higher in certificate courses

**Certificate: Android App Developer 4119**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
Take one sequence of:				
CS 21	Java: Computer Science 1	4		
<b>OR</b>		<b>OR</b>		
CS 11	Computer Programming: C++1	4		
COSP 38	Database Concepts	4		
COSP 230	Android App Development with Java	3		
<b>TOTAL UNITS</b>		<b>11</b>		

**Certificate: PHP Web Programmer 4129**

**REQUIRED COURSES**

COSP 38	Database Concepts
COSW 10	Beginning Website Development
COSW 200	Introduction to JavaScript
COSW 220	Web Development with PHP/MySQL

	UNITS	In Progress	Completed Grade
	4		
	4		
	3		
	3		
<b>TOTAL UNITS</b>	<b>14</b>		

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. The Database Management Systems concentration includes coursework in the design, development and maintenance of relational databases. The program is designed to prepare students for employment in a computer field following graduation. Students wishing a Bachelors' degree (transfer program) should meet with a counselor or advisor to discuss transferability of courses.

## **Program Mission and Outcomes**

This program will provide students with a strong foundation in the design and management of database systems in a business environment. In-depth practice of Structured Query Language (SQL) is provided in the context of business-related case studies. The Database Management program covers advanced database concepts, including database administration, database technology, database web programming and selection and acquisition of database management systems. Supporting courses allow students to gain a thorough understanding of necessary business communication skills, operating systems, programming logic and system design.

### **Outcomes:**

1. Analyze the data needs of an organization or company, and determine how to best organize and store the data in logical, secure and accessible structures.
2. Design web applications to access and manipulate data using MS Access, MySQL, MS SQL Server and PHP.
3. Understand the roles and responsibilities of a database administrator, and how to diagnose and troubleshoot systems.

## **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.