

# DATABASE MANAGEMENT

## Curriculum Guide for Academic Year 2014-2015

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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 OR	Business Communications OR	3 OR		
BCOM 20	Business Writing	3		
COSA 25	Microsoft Access for Windows	4		
COSA 50	Introduction to IT Concepts & Applications	4		
COSN 205	UNIX/LINUX Fundamentals	4		
COSP 7	Business Programming Logic and Design	4		
COSP 36	System Analysis and Design	4		
COSP 38	Database Concepts	4		
COSP 238	Advanced Database Concepts	3		
COSW 220	Database Programming with PHP/MySQL	4		
PHIL 12	Introduction to Logic	3		
<b>Subtotal Units</b>		<b>37</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 37 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 30 units of the required 60 in residence at LBCC, or complete in residence at LBCC at least 20 units within the last 30 units of work applied to the 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 18.5 units** of the 37 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
- 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>.

**Associate Degree requirements continue on following page.**

**Associate Degree requirements continued from previous page.**

- 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**

**Pending State approval. Please check back at a later time for approval status. Once Certificate is approved, content will be updated.**

**Program of study leading to:  
Certificates of Accomplishment**

**Certificate: Basic Databases 4080**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
COSA 25	Microsoft Access for Windows	4		
BCOM 15 OR	Business Communications OR	3 OR		
BCOM 20	Business Writing	3		
<b>TOTAL UNITS</b>		<b>7</b>		

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

**Certificate: Cyber Security 4106**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
COSN 10	Networking Fundamentals	4		
COSS 270	Information Security Fundamentals	1		
COSS 271	Network Security Fundamentals	3		
COSS 272	Computer Forensics and Investigation	4		
COSS 273	Ethical Hacking and Countermeasures	4		
<b>TOTAL UNITS</b>		<b>16</b>		

**Certificate: Computer Hardware Technician 4126**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
COSN 3	Operating Systems: Software and Hardware	4		
COSN 5	Computer Technician Hardware Basics	4		
<b>TOTAL UNITS</b>		<b>8</b>		

**Certificate: Business Digital Literacy 4130**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
COSA 1	Computer Information Competency	1		
<b>TOTAL UNITS</b>		<b>1</b>		

**Certificate of Accomplishment requirements continued on the next page.**

**Certificate of Accomplishment requirements continued from previous page.**

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.