Certificate of Achievement in Business Application & Database Management

*Requirement: 9 units of core courses and 9 units of elective courses->total 18 units

Business Application & Database Administration Required and Elective Courses

Course Number	Core or Elective	Course Title	Units	Year 1 Semester1
CIS 120	Core	Introduction to Databases	3	Y 1 S 1
CIS 105	Core	Intro to Data Analytic Techniques and Tools	3	Y 1 S 1
CIS 124	Core	Data Analytics (Advanced Excel and Access)	3	Y1 S 1
CIS 219	Core	Intro to Oracle: SQL and PL/SQL	3	Y 1 S 2
		Select Following Restricted Elective Courses: 9 units		
CIS 101	Elective	Intro to Computers and Their Uses	3	Y1 S 1
CIS 104	Elective	Microcomputer Application Software	3	Y 1 S 1
CS 112	Elective	Programming in Javascript	3	Y 1 S 2
CS 140	Elective	Programming for Mobile Application	3	Y 1 S 1
CIS 190	Elective	E-Commerce Essentials	3	Y 1 S 1
CIS 192	Elective	Introduction to Cloud Computing	3	Y 1 S 1
CIS 193	Elective	Database Essentials in Amazon Web Services	3	Y 1 S 2
Total Degree Units	Core and Elective		18	

It is recommended that students meet with a counselor to develop a Student Educational Plan (SEP) or contact CS division chair via ChiangAS@wlac.edu for course advice.