DATABASE PROGRAMMING AND APPLICATIONS DEVELOPMENT, CERTIFICATE OF ACHIEVEMENT (C)

Requirements

Certificate of Achievement Requirements

Complete all department requirements for the certificate with a C or better or "pass" in each course. Candidates for a Certificate of Achievement are required to complete at least 20% of the department requirements through SBCC.

Code	Title	Units
Department Requirements		
CIS 101	Introduction to Computers and Information Systems	4
CIS 107	Introduction to Database Systems	4
CIS 119	Introduction To Programming Using Visual Basic	4
COMP 111	Microsoft Access	4
Complete two courses from the following:		6-7
CIS 231	SQL Server Design And Programming	
CIS 234	Oracle Design and Programming	
CIS 252	MySQL Design and Programming	
CIS 254	MongoDB Design and Programming	
CIS 255	Apache Cassandra Design and Programming	
Complete six units from the following:		6-8
CIS 120	Introduction to NoSQL Databases	
CIS 232	SQL Server Database Administration	
CIS 235	Oracle PL/SQL Programming	
CIS 236	Oracle Database Administration	
CIS 237	Advanced SQL Programming	
CIS 238	Data Warehousing SQL Server	
CIS 239	Crystal Reports	
CIS 251	Advanced SQL Server Programming	
CIS 253	Business Intelligence with Microsoft SQL Server	
Total Units		**28.00-31.00**

Learning Outcomes

1. Create programs that reflect the use of modular design and incorporate event-driven and object-oriented approaches.
2. Use database management systems to retrieve discrete and aggregate data from databases and to insert, update and delete discrete data.
3. Create and implement well-designed databases to reflect enterprise needs.
4. Develop business applications using well-structured programs, normalized databases and a multi-tier architecture.

Recommended Sequence

Make an appointment with your SBCC academic counselor through Starfish to create a Student Education Plan that reflects a recommended course sequence for this program that is tailored to your individual needs.

How to schedule an Academic Counseling appointment (http://www.sbcc.edu/starfish/howtos/starfish_appt_how_to.pdf).