CLOUD COMPUTING - ASSOCIATE IN SCIENCE

Plan Code: 2132

The Cloud Computing Associate in Science degree provides the student with the industry skills to understand, build, and maintain cloud applications. These skills include the technical principles of the hardware and software requirements to run systems in the cloud, including storage, database management, and software systems, while maintaining secure access.

Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Create Infrastructure as a Service (IaaS) solutions by provisioning computing instances, establishing virtual private networks, and managing databases, and storage within a secure online environment.
- Analyze performance metrics of cloud architecture to respond dynamically to information and computing technology workloads and optimize service costs.
- Create Infrastructure as a Service using automated code scripts (Infrastructure As Code).

Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
REQUIRED COURSES		
COSN 10	Networking Fundamentals	3
COSN 205	UNIX/LINUX Fundamentals	4
COSN 230	Microsoft Windows Server	4
COSN 250	Cloud Computing in Amazon Web Services	3
COSN 251	Database Essentials in Amazon Web Svcs	3
COSN 252	App Development in Amazon Web Services	3
COSN 253	Security in Amazon Web Services	3
COSS 271	Network Security Fundamentals	3
Subtotal Units		**26**
IN ADDITION, complete ONE (1) course from the following:		
CS 11	Introduction to Computer Science- C++ (3)	
CS 21	Introduction to Computer Science-Java (3)	
CS 31	Introduction to Computer Science-Python (3)	
Subtotal Units		**3**
Required Subtotal		**29**
Complete one of the following: [1]		
LBCC General Education (Plan A) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/)		
CSU GE Breadth (Plan B) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/)		
IGETC Pattern (Plan C) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/)		
Electives (as needed to reach 60 degree-applicable units) [2]		
Minimum Degree Total		**60**

[1] Units for the major may be double-counted for LBCC GE, CSU GE, or IGETC; see counselor for limitations.

[2] Elective units from course(s) numbered 1-599, if needed, to reach 60 degree-applicable units.

CLOUD COMPUTING - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3132

The Cloud Computing Certificate of Achievement provides the student with the industry skills to understand, build, and maintain cloud applications. These skills include the technical principles of the hardware and software requirements to run systems in the cloud, including storage, database management, and software systems, while maintaining secure access.

Program Student Learning Outcomes

- Create Infrastructure as a Service (IaaS) solutions by provisioning computing instances, establishing virtual private networks, and managing databases, and storage within a secure online environment.
- Analyze performance metrics of cloud architecture to respond dynamically to information and computing technology workloads and optimize service costs.
- Create Infrastructure as a Service using automated code scripts (Infrastructure As Code).

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
COSN 10	Networking Fundamentals	3
COSN 205	UNIX/LINUX Fundamentals	4
COSN 230	Microsoft Windows Server	4
COSN 250	Cloud Computing in Amazon Web Services	3
COSN 251	Database Essentials in Amazon Web Svcs	3
COSN 252	App Development in Amazon Web Services	3
COSN 253	Security in Amazon Web Services	3
COSS 271	Network Security Fundamentals	3
Subtotal Units		**26**
IN ADDITION, complete ONE (1) course from the following:		
CS 11	Introduction to Computer Science- C++ (3)	
CS 21	Introduction to Computer Science-Java (3)	
CS 31	Introduction to Computer Science-Python (3)	
Subtotal Units		**3**
Total Units		**29**