DEGREES, CERTIFICATES, AND TRANSFER PREPARATION INFORMATION

CLOUD COMPUTING

Cloud computing is a major technology disrupter, changing countless industries. Cloud Computing delivers computing resources over the internet, replacing the reliance on local information technology infrastructure. Its impact has been profound, reshaping businesses' IT infrastructure due to its remarkable benefits in terms of flexibility, scalability, and cost-effectiveness. A degree in Cloud Computing offers an exceptional opportunity in response to the soaring demand in IT for cloud computing professionals. With organizations rapidly embracing cloud solutions, there is a significant need for skilled experts in cloud architecture, development, operations, security, and management. This is a four-year program with the lower division Cloud Computing Associates degree courses providing students with the skills necessary to enter the upper division courses in this exciting field.

All courses designated as an upper division major requirement must be completed with a minimum grade of "C" (or "P") for each course in the major.

Programs Offered

- Bachelor Degree
  - Cloud Computing
- *See also: Computer Science*

Cloud Computing, Bachelor of Science Degree

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Program Learning Outcomes: Upon completion of the program, students will design, develop, and operate scalable cloud solutions that address and meet defined business needs. Employ and apply current practices, methodologies, tools, and processes utilized in the cloud computing industry. Critically analyze, construct, and deliver effective oral and written communications tailored to engage business and technology professionals working on cloud projects and enterprise technologies. Collaborate, contribute, and perform effectively as an individual contributor or as a member of an inclusive and diverse team, demonstrating teamwork, communication, and cultural awareness.

Area of Emphasis: (120 units)

Lower Division Preparation for Admission into the Program (78 units)

Lower Division GE Requirements (28 units)

SMC AA GE, Area 1 – English Composition, Oral Communication and Critical Thinking (6)

SMC AA GE, Area 2 – Mathematical Concepts and Quantitative Reasoning: STAT C1000 Introduction to Statistics *(formerly MATH 54)* (4)

SMC AA GE,
Area 3 - Arts and Humanities

(3)

SMC AA GE,
Area 4 - Social and Behavioral Sciences

(3)

SMC AA GE,
Natural Sciences

(3)

SMC AA GE, Area 6 – Ethnic Studies (3)

SMC AA GE, Area 7 – Global Citizenship (3)

Additional Lower Division GE Requirements (6 units)

CS 80, Internet Programming (3)

CS 87, Python Programming (3)

Choose 1 Track (9 units)

Microsoft Azure Track

CS 33, C # Programming (3)

CS 79Y, Microsoft Azure Database Essentials (3)

CS 79Z, Microsoft Azure Essentials (3)

or

Amazon Web Services Track

CS 79B, Database Essentials in Amazon Web Services (3)

CS 79C, Compute Engines in Amazon Web Services (3)

CS 79D, Security in Amazon Web Services (3)

Lower Division Major Coursework (24 units)

CS 9A, Technology Project Management I *(same as CIS 9A)* (3)

CS 41, Linux Workstation Administration (3)

CS 60, Database Concepts and Applications (3)

CS 70, Network Fundamentals and Architecture (3)

CS 73A, Fundamentals of Computer Security (3)

CS 73B, Computer Forensics Fundamentals (3)

CS 79A, Introduction to Cloud Computing (3)

CS 81, Javascript Programming (3)

Restricted Elective (3 units)

CS 43, Windows Network Administration (3)

CS 55, Java Programming (3)

CS 79E, Best Practices in Amazon Web Services (3)

CS 82, ASP.NET Programming in C# (3)

CS 87B, Advanced Python Programming (3)

CS 83R, Server-Side Ruby Web Programming (3)

Elective Choice (3 units)

BUS 63, Principles of Entrepreneurship (3)

CIS 30T, Tableau Desktop Essentials (3)

CS 79F, Machine Learning on AWS (3)

CS 79X, Data Science on Azure (3)

CS 82A, Introduction to Data Science (3)

Upper Division General Education Coursework (9 units)

COM ST 310, Organizational and Small Group Communication (3)

ENGL 300, Advanced Writing and Critical Thinking in the Disciplines (3)

MEDIA 310, Race, Gender, and Computing (3)

Upper Division Major Requirements (33 units)
CS 315, Cloud Compliance (3)
CS 320, Cloud Developer (3)
CS 325, Ethics for IT Professionals (3)
CS 330, Cloud Operations Technologies and Tools (3)
CS 335, Cloud Infrastructure as Code (3)
CS 340, System Virtualization Fundamentals (3)
CS 350 , Collaboration Technologies and Tools (3)
CS 405, Cloud Capstone I (3)
CS 410, Cloud Capstone II (3)
CS 440, Cloud Patterns (3)
CS 450, Cloud Certification Bootcamp (3)