

PROGRAM BREAKDOWN

BACHELOR IN COMPUTER ENGINEERING

CONCENTRATION IN CLOUD COMPUTING
 LOWER DIVISION GENERAL EDUCATION COURSES
 GENERAL EDUCATION COURSES (15.0 CREDITS REQUIRED)

COURSE NUMBER	COURSE NAME	CREDIT HOURS
ORAL COMMUNICATIONS		
ENGL 100	Language and Speech Communications	3.0 credit hours
ENGL 115	Fundamentals of Public Speaking	3.0 credit hours
SPC 200	Speech and Public Speaking	3.0 credit hours
HUMANITIES		
PHIL 102	Legal and Ethical Issues	3.0 credit hours
PHIL 200	Introduction to Philosophy	3.0 credit hours
MATHEMATICS		
MATH 102	College Algebra	3.0 credit hours
ENGLISH		
ENGL 200	English Composition I	3.0 credit hours
BEHAVIORAL SCIENCE / SOCIAL ENVIRONMENT		
PSY 201	Psychology	3.0 credit hours
SOC 210	Sociology	3.0 credit hours

UPPER DIVISION GENERAL EDUCATION COURSES
 UPPER DIVISION GENERAL EDUCATION COURSES (15.0 CREDITS REQUIRED)

ENGLISH		
ENGL 302	English Composition II	3.0 credit hours
FOREIGN LANGUAGE		
SPN 310	Conversational Spanish	3.0 credit hours
NATURAL SCIENCE		
BSC 310	General Biology	3.0 credit hours
ECONOMICS		
ECON 302	Principles of Economics (Microeconomics)	3.0 credit hours
ECON 303	Macroeconomics	3.0 credit hours



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LOWER DIVISION MAJOR COURSES (45 CREDITS REQUIRED)

COURSE NUMBER	COURSE NAME	CREDIT HOURS
CIT 102	Introduction to Computer Programming	3.0 credit hours
CIT 105	Programming Practice	3.0 credit hours
CIT 110	Computer Operating Systems	3.0 credit hours
CIT 280	Network Design	3.0 credit hours
CIT 281	Network Administration & Technical Support	3.0 credit hours
CIT 282	Advanced Network Administration	3.0 credit hours
CIT 283	Networking on Azure and AWS	3.0 credit hours
CIT 381	Linux Technology	3.0 credit hours
CIT 382	Cloud Technology Developer	3.0 credit hours
CIT 383	Advanced Cloud Technology Architect	3.0 credit hours
CIT 384	Manage Cloud Technology Identities & Requirements	3.0 credit hours
CIT 385	Cloud Technology Compute Services	3.0 credit hours
EGN 101	Introduction to Computer Engineering	3.0 credit hours
EGN 201	Engineering Drawing	3.0 credit hours
PHY 101	Introduction to Physics	3.0 credit hours

UPPER DIVISION MAJOR COURSES (30 CREDITS REQUIRED)

CIT 480	Security Technology	3.0 credit hours
CIT 481	Security Ethical Hacking	3.0 credit hours
CIT 482	Security Analyst	3.0 credit hours
CIT 483	Information Systems Security	3.0 credit hours
CIT 484	Advanced Information Systems Security	3.0 credit hours
EGN 310	Data Structures	3.0 credit hours
EGN 321	Engineering Software Technology	3.0 credit hours
EGN 325	Computer Architecture	3.0 credit hours
EGN 410	Product Design	3.0 credit hours
PHY 440	Solid State Physics	3.0 credit hours



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BACHELOR IN COMPUTER ENGINEERING

MAJOR CONCENTRATION COURSES
CERTIFICATIONS CLOUD COMPUTING(18 CREDITS REQUIRED)

TECHNICAL AND SPECIALIST MAJOR COURSES

This concentration focuses on the fundamentals of building IT infrastructure on a cloud platform, cloud services management for building, deploying, and maintaining various cloud models, techniques for developing applications to take advantage of availability, security, performance, and scalability of the cloud, creating and using big data analytical environments, building security into cloud platforms, and securely managing and accessing cloud environments.

COURSE NUMBER	COURSE NAME	CREDIT HOURS
CCIA 420	Cloud Logic and Decision Making	3.0 credit hours
CCIA 430	Customer Problem Resolution	3.0 credit hours
CCIA 440	Network Virtual Implementation	3.0 credit hours
CCIA 450	Virtual Servers and Data Centers	3.0 credit hours
CCIA 460	Security & Design: Fault Tolerant Enterprise	3.0 credit hours
CCIA 470	Cloud Computing Project	3.0 credit hours

