INFORMATION TECHNOLOGY & NETWORKING

Specialization: Cloud Based Networking and Virtualization



ABOUT THIS DEGREE PROGRAM



A FOUNDATION IN TECHNOLOGY

This program is anchored with Tech Core, curriculum designed to help you build a foundation of interdisciplinary skills you'll

need for today's Internet of Things (IoT) economy. You'll learn relevant skills in operating systems, programming, hardware, connectivity and security – giving you a hands-on foundation in engineering technology, information technology and software and information systems.

A PROGRAM TO FUEL YOUR FUTURE

Gain exposure to cloud computer, information storage and enterprise network design and management in this specialization. You'll also prepare to design and implement systems that transmit, store and analyze data and information passing through shared resources, to help businesses operate economically.

IS THIS PROGRAM FOR YOU?

Interested in a career in information technology (IT) and helping businesses improve and expand computing power to become more profitable, then this specialization, focused on cloudbased networking and virtualization, may be the right fit for you.

CAREER OPPORTUNITIES

Graduates of DeVry's <u>Information Technology and Networking</u> <u>degree program with a specialization in Cloud Based Networking and Virtualization</u> may consider, but are not limited to, the following careers:

- Cloud Computing Technologist
- Cloud & Workspace Administrator
- Computer Network Support Specialist
- Computer Systems Analyst
- Information Security Analysts
- Server Hardware Technologist
- Virtualization Specialist

WHAT YOU'LL LEARN

ESSENTIALS

- Communicate methods and findings
- Collaborate in dynamic work environments
- Solve complex problems
- Analyze numerical data
- Apply appropriate technologies

TECH CORE

- Produce, secure, operate and troubleshoot small enterprise networks
- Network, secure and deploy digital devices and sensors into the IoT ecosystem
- Solve technical problems using an algorithmic approach and basic programming and coding methods
- Install and configure operating systems using command-line interface (CLI)

PROGRAM

- Develop applications in an IDE framework
- Design LANs and VLANs
- Understand architecture and design
- Understand operation, regulation and trends

SPECIALIZED

- Operation and troubleshooting of data centers
- Deploy cloud-based systems and solutions
- Develop enterprise and cloud-based systems
- Design mobile device applications

QUICK FACTS

120 CREDIT HOURS

minimum credit hours required for graduation

SKILLS FOCUSED

SKILL FOCUSED CURRICULUM

Elements of our technology curriculum help prepare you to pursue certification opportunities that can validate your knowledge and skills.

- CompTIA Linux+
- CompTIA Security+
- CompTIA Network+
- CompTIA Project+
- CompTIA Cloud+
- PCEP Certified Entry-Level Python Programmer



CERTIFICATION EXAM REIMBURSEMENT

We reimburse qualified students up to \$300 for the cost of one industry certification exam attempt across a wide range of fields.



ACCELERATE AT YOUR PACE

Choose the schedule that best fits your goals and commitments. You can earn your **Bachelor's Degree** in as little as **2 years 8 months**.

Or, follow a normal schedule and complete your program in 4 years.

*Per 12-month period, assumes completion of 3 semesters, enrollment in 12-19 credit hours per semester and continuous, full-time year-round enrollment with no breaks.

**Per 12-month period, assumes completion of 2 semesters and full-time enrollment in 12-19 credit hours per semester.



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ESSENTIALS

51 **CREDIT HOURS**

COMMUNICATION SKILLS

ENGL135 **Advanced Composition**

ENGL216 **Technical Writing**

Select one

SPCH275 **Public Speaking**

SPCH276 Intercultural Communication ®

HUMANITIES

LAS432 Technology, Society, and Culture 😣

Select one

ETHC232 Ethical and Legal Issues in the Professions

ETHC334 Diversity, Equity and Inclusion in the

Workplace ⊗

SOCIAL SCIENCES

ECON312 **Principles of Economics SOCS185** Culture and Society &

Select one

SOCS325 **Environmental Sociology**

SOCS350 Cultural Diversity in the Professions &

MATHEMATICS AND NATURAL SCIENCES

MATH114 Algebra for College Students

MATH234 Discrete Math in Information Technology

PHYS204 Applied Physics with Lab TECH221 Data-Driven Decision - Making

PERSONAL AND PROFESSIONAL DEVELOPMENT

CARD405 Career Development

COLL148 Critical Thinking and Problem-Solving

BE AN ACTIVE PART OF AN INCLUSIVE FUTURE



Customize your curriculum by choosing Diversity, Equity and Inclusion (DE&I) course alternates for your Communication Skills, Humanities and Social Science courses. These course options – denoted by this icon - highlight relevant topics to help empower you to promote an inclusive workplace.

TECH CORE

CREDIT HOURS TECH CORE CEIS101 Introduction to Technology and Information Systems CEIS106 Introduction to Operating Systems CEIS110 Introduction to Programming CEIS114 Introduction to Digital Devices NFTW191 Fundamentals of Information Technology and Networking NETW212 **Introduction to Cloud Computing**

SEC285 Fundamentals of Information Systems Security

PROGRAM

36 CREDIT HOURS

INFORMATION SYSTEMS AND PROGRAMMING

CEIS150 Programming with Objects

CEIS236 **Database Systems and Programming**

Fundamentals

SEC313 Applied AI for Network Security

NETWORK SYSTEMS ADMINISTRATION

NETW260 Intermediate Information Technology and

Networking I

NETW270 Intermediate Information Technology and

Networking II

NETW310 Wired, Optical and Wireless Communications

with Lab

NETW404 **Data Center Visualization**

TECH408 Applied AI for Management and Technology

CAREER PREPARATION

CEIS298 Introduction to Technical Project Management

CEIS499 Preparation for the Profession

Senior Proiect

MGMT404 **Project Management** **SPECIALIZED**

CREDIT HOURS

CLOUD BASED NETWORKING AND VIRTUALIZATION

NETW314 **Cloud Computing**

SEC380 **Cloud Computing Security**

Select one

NETW350 **Cloud Services** NETW351 Cloud Architecture

Select one

NETW450 Cloud Development NETW451 **Cloud Operations**

Demonstrate Skills at Every Step



EMBEDDED PROGRAMS

Earn two additional credentials with our unique 3-in-1 design. All courses in our Networking Essentials certificate and Information Technology and Networking associate degree are embedded within this program. So you can earn a certificate and an associate degree on the way to your bachelor's degree.

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TECH460

