Cloud, Networking, Security and Administration Associate in Applied Science (CNSA.AAS)

The Associate Degree Program in Information Technology provides students with a comprehensive foundation in cloud technologies, cybersecurity, and networking. This program is designed to equip students with the knowledge and skills needed to excel in the rapidly evolving field(s) of IT.
Core components of the focus areas of this program:

- **Cloud Technologies:** Students will gain a deep understanding of cloud computing principles, including virtualization, cloud infrastructure, and platform-as-a-service (PaaS) solutions. Practical hands-on experience with leading cloud platforms will be a key component.
- **Cybersecurity:** The program emphasizes the importance of securing digital assets and networks. Students will learn about encryption, network security, threat detection, and incident response. Ethical hacking and penetration testing techniques will also be covered to enhance practical skills.
- **Networking:** The networking component covers fundamental and advanced concepts in computer networking. Topics include network design, protocols, routing, switching, and troubleshooting. Practical lab exercises will provide students with real-world experience in configuring and managing network infrastructure.

Program Highlights: Industry-Relevant Curriculum: The program is constantly updated to reflect the latest trends and technologies in the IT industry.

Hands-On Learning: Practical labs, projects, and real-world scenarios ensure that students gain valuable hands-on experience.

Industry Certifications: Students have the opportunity to earn relevant certifications such as CompTIA Security+, Cisco CCNA, and AWS Certified Solutions Architect.
Career Development: The program includes career development workshops, resume building, and networking opportunities to prepare students for successful entry into the workforce.

Upon completion of the associate degree, students will be well-prepared for entry-level positions in cloud technologies, cybersecurity, and networking, with the added flexibility to pursue further specialization through the Networking and Systems Administration certificate programs as well as taking on more than one focus area.

Minimum credits: 62
Minimum cumulative GPA: 2.0
Minimum grade in all courses: 2.0
Minimum Jackson College credits: 15

GENERAL EDUCATION REQUIREMENTS (20-22 CREDITS)

GEO 1: Write clearly, concisely and intelligibly (3 credits)

Take the following:

ENG	131	Writing Experience I

GEO 2: Recognize the importance of equity and inclusion in a diverse society (3 credits)**

Choose one of the following:

ANT	131	Cultural Anthropology
COM	250	Intercultural Communication
HIS	211	Minority Groups in America
HUM	131	Cultural Connections
PLS	262	International Relations

GEO 3: Demonstrate computational skills and mathematical reasoning (4 credits)

Take the following:

MAT	133	Introduction to Probability and Statistics

GEO 4: Demonstrate scientific reasoning (4 credits)

Choose two of the following from two different disciplines; at least one must be a laboratory science course:

BIO	110	Introductory Biology
CEM	131	Fundamentals of Chemistry
GEL	109	Earth Science
NSC	131	Contemporary Science
PHY	131	Conceptual Physics

GEO 5: Understand human behavior and social systems, and the principles which govern them (3 credits)

Take the following:

ECN	231	Macroeconomics
ECN	232	Microeconomics
PLS	141	American National Government
PSY	140	Introduction of Psychology
SOC	231	Principles of Sociology

GEO 6: Identify artistic, linguistic, and theoretical perspectives across the human experience (3 credits)

ART	111	Art History: Prehistoric to 1400
ART	112	Art History: Renaissance to Present
HUM	131	Cultural Connections
MUS	131	Understanding Music

CNSA CORE REQUIREMENTS (27 CREDITS)

Take the Following:

CNS	101	Network Fundamentals/Network+
CNS	106	Computer Networking II
CNS	107	Computer Networking III
CNS	121	Microsoft® Networking Client I
CNS	123	Microsoft® Networking Client II
CNS	131	Linux Administration I
CNS	141	Wireless Networking
CNS	201	Network Security/Security +

CHOOSE ONE OF THE FOLLOWING TRACKS:

CYBERSECURITY TRACK REQUIREMENTS (15 CREDITS)

Take the Following:

CNS	210	Python Scripting and Security
CNS	231	Firewalls and Intrusion Detection
CNS	233	Hacker Techniques and Incident Handling
CNS	235	Packet Analysis and Network Forensics
CNS	245	Internship

CLOUD NETWORKING TRACK REQUIREMENTS (15 CREDITS)

Take the Following:

CNS	251	Cloud Computing
CNS	252	Virtualization I
CNS	253	Virtualization II
CNS	254	Information Storage and Management
CNS	245	Internship

NETWORK ADMINISTRATION CORE REQUIREMENTS (15 CREDITS)

Take the Following:

CNS	124	Microsoft® Networking Server IV
CNS	125	Microsoft® Directory Service
CNS	128	PowerShell Scripting for Network Administrators
CNS	235	Packet Analysis and Network Forensics
CNS	245	Internship