The Collin College Catalog

Academic Year: 2021-2022

Addendum
Published December 2021

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COLLIN COLLEGE CATALOG ADDENDUM - DECEMBER 2021

Workforce Degree Plan by Program

CLOUD COMPUTING

AAS – Cloud Computing - Infrastructure
60 credit hours

FIRST YEAR
First Semester

ENGL	1301	Composition I
CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITNW	1309	Fundamentals of Cloud Computing
~~ITMT~~	~~1372~~	~~Installation, Storage, and Computing with Windows Server 2016~~
ITNW	1354	Implementing and Supporting Servers (Windows Server)

Second Semester

GEN ED		Humanities/Fine Arts course
ITNW	2375	VMware vSphere: Installation, Configuration, and Management
ITSC	1316	Linux Installation and Configuration
ITSE	1359	Introduction to Scripting Languages – Python
ITNW	1373	Cloud Storage and Database

SECOND YEAR
First Semester

GEN ED		Mathematics/Natural Sciences course
ITNW	1374	Cloud Computing Security
ITNW	2370	Containerization and Micro Services
ITNW	1336	Cloud Deployment & Infrastructure Management
ITNW	1375	Cloud Administrator I

Second Semester

GEN ED		Social/Behavioral Sciences course
GEN ED		Speech course
ITSC	1315	Project Management Software

ITNW	2327	Advanced Cloud Concepts (Capstone)
ITNW	1376	Cloud Administrator II

Certificate Level 1 – Cloud Computing - Infrastructure
42 credit hours

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITNW	1309	Fundamentals of Cloud Computing
~~ITMT~~	~~1372~~	~~Installation, Storage, and Computing with Windows Server 2016~~
ITNW	1354	Implementing and Supporting Servers (Windows Server)

Second Semester

ITNW	2375	VMware vSphere: Installation, Configuration, and Management
ITSC	1316	Linux Installation and Configuration
ITSE	1359	Introduction to Scripting Languages – Python
ITNW	1373	Cloud Storage and Database

SECOND YEAR
First Semester

ITNW	1374	Cloud Computing Security
ITNW	2370	Containerization and Micro Services
ITNW	1336	Cloud Deployment & Infrastructure Management
ITNW	1375	Cloud Administrator I

Second Semester

ITNW	2327	Advanced Cloud Concepts (Capstone)
ITNW	1376	Cloud Administrator II

COMPUTER NETWORKING

AAS – Computer Networking – Integrated Networking Technologies Track
60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+

ITCC 1314 CCNA 1: Introduction to Networks
ITNW 1309 Fundamentals Cloud Computing
GEN ED Mathematics course

Second Semester
ITNW 1351 Fundamentals of Wireless LANs
ITCC 1344 CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITCC 2320 CCNA 3: Enterprise Networking, Security, and Automation (ENSA)
ITSC 1316 Linux Installation and Configuration
ITSY 1300 Fundamentals of Information Security (Security+)

SECOND YEAR
First Semester
ITSY 2300 Operating System Security
ENGL 1301 Composition I
~~ITMT~~ ~~1372~~ ~~Installation, Storage and Computing with Windows Server 2016~~
ITNW 1354 Implementing and Supporting Servers (Windows Server)
SPCH 1321 Business and Professional Communication (See Speech options)
~~ITMT~~ ~~1373~~ ~~Networking with Windows Server 2016~~
ITSC 2325 Advanced Linux (Red Hat RH124)

Second Semester
ITNW 2373 Information Storage Management (EMC)
ITNW 2375 VMware vSphere: Installation, Configuration and Management (Capstone)
GEN ED Humanities/Fine Arts course
GEN ED Social/Behavioral Sciences course
ELECTIVE *

Elective (3 credit hours): ITSE 1359, ITNW 1364 or any ITCC, ITMT, ITNW, or ITSY course not listed above.

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

AAS – Computer Networking – Infrastructure Track (Routing and Switching)
60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester
CPMT 1305 IT Essentials I: PC Hardware and Software
ENGL 1301 Composition I
ITNW 1358 Network+
ITCC 1314 CCNA 1: Introduction to Networks
GEN ED Mathematics course

Second Semester
ITCC 1344 CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITCC 2320 CCNA 3: Enterprise Networking, Security, and Automation (ENSA)
ITNW 1351 Fundamentals of Wireless LANs
ITNW 2375 VMware vSphere: Installation, Configuration and Management
ITSE 1359 Introduction to Scripting Languages – Python

Third Semester
GEN ED Social/Behavioral Sciences course
GEN ED Humanities/Fine Arts course

SECOND YEAR
First Semester
ITCC 2377 Implementing Enterprise Network Core Technologies
~~ITMT~~ ~~1372~~ ~~Installation, Storage and Computing with Windows Server 2016~~
ITNW 1354 Implementing and Supporting Servers (Windows Server)
ITSY 2300 Operating Systems Security
SPCH 1321 Business and Professional Communication (See Speech options)
ELECTIVE *

Second Semester
ITCC 2379 Implementing Enterprise Advanced Routing and Services (Capstone)
~~ITMT~~ ~~1373~~ ~~Networking with Windows Server 2016~~
ITSC 1316 Linux Installation and Configuration
ITNW 1309 Fundamentals of Cloud Computing

***Elective (3 credit hours): ITMT 1371, ITNW 1364 or any ITCC, ITMT, ITNW, or ITSY course not listed above.*

Note: ITCC 2320 (CNNA 3) – or the CCNA certification-- is the prerequisite for the CCNP courses

in the concurrent or postgraduate Enhanced Skills Certificate.

AAS – Computer Networking – Systems Track
60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITMT	1371	Configuring and Supporting Microsoft Windows 10 (MD-100)
ITCC	1314	CCNA 1: Introduction to Networks
GEN ED		Humanities/Fine Arts course

Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1354	Implementing and Supporting Servers (Windows Server)
ITMT	1373	Networking with Windows Server 2016
ITSC	1316	Linux Installation and Configuration
ITMT	1374	Identity with Windows Server 2016
ITNW	1309	Fundamentals of Cloud Computing
ITSY	1300	Fundamentals of Information Security (Security+)

Third Semester

ENGL	1301	Composition I
GEN ED		Social/Behavioral Sciences course

SECOND YEAR
First Semester

ITSC	2325	Advanced Linux (Red Hat RH124)
ITSE	1359	Introduction to Scripting Languages – Python
SPCH	1321	Business and Professional Communication (See Speech options)
GEN ED		Mathematics course

Second Semester

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration, and Management (Capstone)

ITSY	2300	Operating System Security
ELECTIVE *		

Elective (3 credit hours): ITCC 2320, ITNW 1351, ITNW 1364 or any ITCC, ITMT, ITNW, or ITSY course not listed above.

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

AAS – Computer Networking – Wireless Track
60 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1351	Fundamentals of Wireless LANs
ITNW	1358	Network+
ITNW	1371	Aruba Switching Fundamentals for Mobility

Second Semester

ENGL	1301	Composition I
GEN ED		Mathematics course
ITNW	1378	Wireless Network Administration
ITNW	2379	Implementing Aruba Campus Switching Solutions
ITNW	1372	Implementing Aruba Wireless

SECOND YEAR
First Semester

ENGL	2311	Technical and Business Writing
SPCH	1321	Business and Professional Communication [1] (See Speech options)
ITNW	2371	Wireless Network Security
ITSE	1359	Introduction to Scripting Languages - Python
ITNW	2377	Aruba Scale-able WLAN Design and Implementation

Second Semester

ITNW	2372	Wireless Network Design
ITNW	2374	Emerging Wireless Technology (Capstone)
ITNW	2378	Fundamentals of IoT
GEN ED		Humanities/Fine Arts course
GEN ED		Social/Behavioral Sciences course

1. May substitute SPCH 1311 or SPCH 1315

Integrated Networking Technologies Track

Certificate Level 1 – Integrated Networking Technologies Track – Integrated Networking Virtualization and Storage Technician
18 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

ITNW	1358	Network+
ITNW	1309	Fundamentals Cloud Computing
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1354	Implementing and Supporting Servers (Windows Server)

Second Semester

ITMT	1373	Networking with Windows Server 2016
ITSC	1316	Linux Installation and Configuration
ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration and Management (Capstone)

Certificate Level 2 – Integrated Networking Technologies Track – Integrated Networking Administrator
45 Credit Hours

Students must be TSI complete.

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1309	Fundamentals Cloud Computing

Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITSY	2300	Operating System Security
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1354	Implementing and Supporting Servers (Windows Server)
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation (ENSA)

SECOND YEAR
First Semester

ITNW	1351	Fundamentals of Wireless LANs
ITSC	1316	Linux Installation and Configuration
ITMT	1373	Networking with Windows Server 2016
ITSC	2325	Advanced Linux (Red Hat RH124)
ITSY	1300	Fundamentals of Information Security (Security+)

Second Semester

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration and Management (Capstone)

ELECTIVE *

* Elective (3 credit hours): ITSE 1359, or any ITCC, ITMT, ITNW, or ITSY course not listed above.

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

Infrastructure Track

Certificate Level 2 – Infrastructure Track – Infrastructure Administrator
45 Credit Hours

Students must be TSI complete.

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks
ITNW	1351	Fundamentals of Wireless LANs

Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITCC	2320	CCNA 3: Enterprise Networking, Security, and Automation (ENSA)
ITNW	1309	Fundamentals Cloud Computing
ITSE	1359	Introduction to Scripting Languages – Python

SECOND YEAR
First Semester

ITCC	2377	Implementing Enterprise Network Core Technologies
ITCC	2379	Implementing Enterprise Advanced Routing and Services
~~ITMT~~	~~1372~~	~~Installation, Storage and Computing with Windows Server 2016~~
ITNW	1354	Implementing and Supporting Servers (Windows Server)

Second Semester

~~ITMT~~	~~1373~~	~~Networking with Windows Server 2016~~
ITSC	1316	Linux Installation and Configuration
ITNW	2375	VMware vSphere: Installation, Configuration and Management
ITSY	2300	Operating Systems Security (Capstone)
ELECTIVE *		

* Elective (3 credit hours): ITMT 1371, or any ITCC, ITMT, ITNW, or ITSY course not listed in the degree plan.

Note: ITCC 2320 (CCNA 3) -- or the CCNA certification -- is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

Systems Track

Certificate Level 1 – Systems Track – Systems Software Technician
24 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

ITNW	1358	Network+
CPMT	1305	IT Essentials I: PC Hardware and Software
ITCC	1314	CCNA 1: Introduction to Networks
~~ITMT~~	~~1372~~	~~Installation, Storage and Computing with Windows Server 2016~~
ITNW	1354	Implementing and Supporting Servers (Windows Server)

Second Semester

~~ITMT~~	~~1373~~	~~Networking with Windows Server 2016~~
ITSC	1316	Linux Installation and Configuration (Capstone)
~~ITMT~~	~~1374~~	~~Identity with Windows Server 2016 (Capstone)~~
ITNW	1309	Fundamentals of Cloud Computing

| ITSE | 1359 | Introduction to Scripting Languages – Python |
| ITSY | 1300 | Fundamentals of Information Security (Security+) |

Certificate Level 1 – Systems Track – Systems Technician
27 Credit Hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITCC	1314	CCNA 1: Introduction to Networks
~~ITMT~~	~~1372~~	~~Installation, Storage and Computing with Windows Server 2016~~
ITNW	1354	Implementing and Supporting Servers (Windows Server)
ITNW	1358	Network+
ITSE	1359	Introduction to Scripting Languages – Python

Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
~~ITMT~~	~~1373~~	~~Networking with Windows Server 2016~~
ITSC	1316	Linux Installation and Configuration (Capstone)
~~ITMT~~	~~1374~~	~~Identity with Windows Server 2016 (Capstone)~~
ITNW	1309	Fundamentals of Cloud Computing
ITSY	1300	Fundamentals of Information Security (Security+)

Certificate Level 2 – Systems Track – Systems Administrator
45 Credit Hours

Students must be TSI complete.

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

| CPMT | 1305 | IT Essentials I: PC Hardware and Software |
| ITNW | 1358 | Network+ |

ITMT	1372	~~Installation, Storage and Computing with Windows Server 2016~~
ITNW	1354	Implementing and Supporting Servers (Windows Server)
ITCC	1314	CCNA 1: Introduction to Networks

Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITMT	1373	~~Networking with Windows Server 2016~~
ITSC	1316	Linux Installation and Configuration
ITSE	1359	Introduction to Scripting Languages – Python
ITSY	1300	Fundamentals of Information Security (Security+)

SECOND YEAR
First Semester

ITMT	1371	Configuring and Supporting Microsoft Windows 10 (MD-100)
ITMT	1374	~~Identity with Windows Server 2016~~
ITNW	1309	Fundamentals of Cloud Computing
ITSC	2325	Advanced Linux (Red Hat RH124)

Second Semester

ITNW	2373	Information Storage Management (EMC)
ITNW	2375	VMware vSphere: Installation, Configuration, and Management (Capstone)
ITSY	2300	Operating System Security
ELECTIVE *		

* Elective (3 credit hours): ITCC 2320, ITNW 1351, or any ITCC, ITMT, ITNW, or ITSY course not listed above.

Note: ITCC 2320 (CCNA 3) – or the CCNA certification – is the prerequisite for the CCNP courses in the concurrent or postgraduate Enhanced Skills Certificate.

INFORMATION SYSTEMS CYBERSECURITY

AAS – Information Systems Cybersecurity
60 credit hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITMT	1372	~~Installation, Storage and Computing with Windows Server 2016~~

ITSY	1371	OSINT and Introductory Security Analysis
ITSY	2300	Operating System Security
ENGL	1301	Composition I

Second Semester

ITCC	1314	CCNA 1: Introduction to Networks
ITMT	1373	~~Networking with Windows Server 2016~~
ITSY	1372	Cyber-Psychology and the Effects of Emerging Technology
ITSC	1316	Linux Installation and Configuration
ITSY	1300	Fundamentals of Information Security (Security+)
ITSY	2301	Firewalls and Network Security

SECOND YEAR
First Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITSY	2330	Intrusion Detection
MATH	1342	Elementary Statistical Methods (See Mathematics options)
SPCH	1321	Business and Professional Communication (See Speech options)

ELECTIVE *

Second Semester

ECON	2302	Principles of Microeconomics (See Social/Behavioral Sciences options)
ITSE	1359	Introduction to Scripting Languages – Python
ITSY	2341	Security Management Practices (Capstone)
ITSY	2343	Computer System Forensics
PHIL	2303	Introduction to Formal Logic (See Humanities options)

* Elective (3 credit hours): ITSY 2572 (recommended), or any ITCC, ITNW, ITMT, or ITSY course not listed above

Certificate Level 1 – Information Systems Cybersecurity
36 credit hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+
ITCC	1314	CCNA 1: Introduction to Networks

ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITSY	1371	OSINT and Introductory Security Analysis

Second Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITMT	1373	Networking with Windows Server 2016
ITSY	1372	Cyber-Psychology and the Effects of Emerging Technology
ITSY	1300	Fundamentals of Information Security (Security+)

SECOND YEAR
First Semester

ITSY	2300	Operating System Security
ITSY	2301	Firewalls and Network Security
ITSY	2330	Intrusion Detection

Second Semester

ITSY	2341	Security Management Practices (Capstone)
ITSY	2343	Computer System Forensics

Certificate Level 1 – Cybersecurity Infrastructure Technician
21 credit hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC, and ITSY courses are offered in eight-week express sessions.

FIRST YEAR
First Semester
First 8 Weeks

CPMT	1305	IT Essentials I: PC Hardware and Software
ITNW	1358	Network+

Second 8 Weeks

ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITSC	1316	Linux Installation and Configuration
ITSY	1371	OSINT and Introductory Security Analysis

Second Semester
First 8 Weeks

ITMT	1373	Networking with Windows Server 2016
ITSY	1372	Cyber-Psychology and the Effects of Emerging Technology
ITSY	2300	Operating System Security

Second 8 Weeks

ITSY	2301	Firewalls and Network Security (Capstone)

BACCALAUREATE DEGREE PLANS BY PROGRAM

CYBERSECURITY

BAT – Cybersecurity
120 credit hours

Many CPMT, ITCC, ITMT, ITNW (except ITNW 2374), ITSC, and ITSY courses are offered in eight-week express sessions.

FIRST YEAR - AAS
First Semester

CPMT	1305	IT Essentials I: PC Hardware and Software
ITMT	1372	Installation, Storage and Computing with Windows Server 2016
ITNW	1358	Network+
ITSY	1371	OSINT and Introductory Security Analysis
ITSY	2300	Operating System Security
ENGL	1301	Composition I

Second Semester

ITCC	1314	CCNA 1: Introduction to Networks
ITMT	1373	Networking with Windows Server 2016
ITSY	1372	Cyber-Psychology and the Effects of Emerging Technology
ITSC	1316	Linux Installation and Configuration
ITSY	1300	Fundamentals of Information Security (Security+)
ITSY	2301	Firewalls and Network Security

SECOND YEAR -AAS
First Semester

ITCC	1344	CCNA 2: Switching, Routing, and Wireless Essentials (SRWE)
ITSY	2330	Intrusion Detection
MATH	1342	Elementary Statistical Methods (See Mathematics options)
SPCH	1321	Business and Professional Communication (See Speech options)

ELECTIVE *

Second Semester

ECON	2302	Principles of Microeconomics (See Social/Behavioral Sciences options)
ITSE	1359	Introduction to Scripting Languages – Python
ITSY	2341	Security Management Practices

| ITSY | 2343 | Computer System Forensics |
| PHIL | 2303 | Introduction to Formal Logic (See Humanities options) |

THIRD YEAR - BAT
First Semester
CYBR	3310	Introduction to Cryptography
CYBR	3320	Digital and Device Forensics
CYBR	3330	Advanced Network Topologies and Protocols
CYBR	3340	Cyber Crime
~~EDUC~~	~~1100~~	~~Learning Framework (See Collin options)~~
ENGL	2311	Technical and Business Writing (See Communication options)

Second Semester
CYBR	3350	Cyber Privacy
CYBR	3360	Mobile Technologies
CYBR	4310	Penetration Testing
GOVT	2305	Federal Government (Federal constitution and topics)
PHYS	1415	Physical Science I (See Life & Physical Sciences options)
~~PHYS~~	~~1405~~	~~Conceptual Physics (See Life & Physical Sciences options)~~

FOURTH YEAR - BAT
First Semester
CYBR	4320	Cyber Defense Operations
CYBR	4330	Virtualization and Cloud Security
CYBR	4340	Information Assurance
ENVR	1401	Environmental Science I (See Life & Physical Sciences options)
HIST	1301	United States History I (See American History options)

Second Semester
CYBR	4350	Senior Project (Capstone)
KINE	1164	Introduction to Physical Fitness and Wellness (See Collin options)
GOVT	2306	Texas Government (Texas constitution and topics)
HIST	1302	United States History II (See American History options)
GEN ED		Creative Arts course

* Elective (3 credit hours): ITSY 2572 (recommended) or any ~~CPMT~~, ITCC, ITMT, ITNW, ~~ITSC~~, or ITSY course not listed above.

ALPHABETIZED COURSE DESCRIPTIONS

New courses – Effective Fall 2021

ITNW 1336 Cloud Deployment & Infrastructure Management
Focus on Cloud infrastructure, deployment, security models, and key considerations in migrating to Cloud computing. Includes the technologies and processes required to build on-premise and Cloud environments, including computation, storage, networking, virtualization, business continuity, security, and management. Lab required. 3 credit hours. (W)

ITNW 1354 Implementing and Supporting Servers (Windows Server)
Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment. Additionally, this course provides an introduction to Windows Server 2019. Lab required. Prerequisite: ITNW 1358 or ITCC 1314. 3 credit hours. (W)

ITNW 1373 Cloud Storage and Database
Cloud Storage and Database technologies used in cloud computing. Topics include data storage for cloud, mobile, social media, and software. Provides a strong understanding of cloud computing concepts, technology, and architecture in support of storage technologies and prepares students for advanced concepts, technologies, and processes. This course investigates the existing concepts of Cloud Computing from the standpoint of technology resources and an internetworking perspective. The concepts that will be explored involve how Cloud Computing has matured, the growth of Cloud Computing and how the strategies that surround Cloud Computing have added to business agility. The course will study the vastness of Cloud Computing, the services that Cloud Computing offers, and several vendor case studies on their methodology that drives Cloud Computing. Lab required. Prerequisite: ITNW 1309. 3 credit hours. (W)

ITNW 1374 Cloud Computing Security
Introduction to Cloud Security including tools which monitor data moving to and from the cloud and between cloud platforms, identification of fraudulent use of data in the Cloud and its financial and performance impact. Third-party cloud security solutions including cloud security gateways, centralized cloud management, and native IaaS/PaaS platform security will be presented. Lab required. 3 credit hours. (W)

ITNW 1375 Cloud Administrator I
The Administration I course will be based on learning how to administrate Amazon Web Services. Understand how to administrator the key five pillars supporting Amazon Web Servers, which are Operational Excellence, Security Reliability, Performance Efficiency and Cost Optimization. Lab required. 3 credit hours. (W)

ITNW 1376 Cloud Administrator II
This course teaches students how to manage their Azure subscriptions, create and scale virtual machines, implement storage solutions, configure virtual networking, back up and share data, connect Azure and on-premises sites, manage network traffic, implement Azure Active Directory, secure identities, and monitor your solution. Lab required. Prerequisite: ITNW 1375. 3 credit hours. (W)

ITNW 2327 Advanced Cloud Concepts
Focus on enterprise Cloud architecture, with advanced topics including multi-Cloud platforms inclusive of computing, networking, storage, monitoring and database. Lab required. 3 credit hours. (W)

ITNW 2370 Containerization and Micro Services
Skills and knowledge related to Cloud computing architecture and services needed to create, deploy and manage containers will be introduced. Concepts of building blocks, container runtimes, container storage, networking and automation deployment, and orchestration of resources are delivered as skills through labs and lecture. Lab required. 3 credit hours. (W)

ITSC 1315 Project Management Software
Use of project management software for developing a project plan including timelines, milestones, scheduling, life cycle phases, management frameworks, skills, processes, and tools. Lab required. 3 credit hours. (W)

ITSC 2325 Advanced Linux (Red Hat RH124)
Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services. Additionally, this is an advanced course in the Linux operating system. The course equips you with Linux administration "survival skills" by focusing on foundational Linux concepts and core tasks. You will learn how to apply command-line concepts and enterprise-level tools, starting you on your journey toward becoming a full-time Linux system administrator. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux. Lab required. Prerequisite/Concurrent Enrollment: ITSC 1316 or

consent of Associate Dean/Director. 3 credit hours. (W)

New courses – Effective Spring 2022

ITSY 1371 OSINT and Introductory Security Analysis
A study of open source and subscription threat intelligence. Includes the role of threat intelligence and organizational incident response. Topics include collection methods, management of operations, classification, production and analysis, assessment of threat vulnerability, business impact analysis, incidence response, and identification of various reporting requirements. The use of link diagrams and various types of association matrices will be introduced and emphasized. Lab required. 3 credit hours. (W)

ITSY 1372 Cyber-Psychology and the Effects of Emerging Technology
Identify effects of psychological phenomena associated with or affected by emerging technology, identify effects on the individual and the combined effects of interpersonal communication in a globally connected ecosystem. Concepts include the application of cyberpsychology through the identification of emotional intelligence and cultural intelligence in a modern environment. Lab required. 3 credit hours. (W)

Revisions – Effective Spring 2022

DANC 1301 Dance Composition - Choreography
This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style. Lab required. Prerequisite: DANC 1201. 3 credit hours. (A)

ITCC 2377 Implementing Enterprise Network Core Technologies
This course gives you the knowledge needed to implement core enterprise network technologies including dual stack (IPv4 and IPv6) architecture, virtualization, infrastructure, network assurance, security and automation. Lab required. Prerequisite: ITCC 2320, CCNA Certification, or consent of Associate Dean/Director. 3 credit hours. (W)

ITCC 2379 Implementing Enterprise Advanced Routing and Services
This course gives you the knowledge you need to install, configure, operate, and troubleshoot an enterprise network. This course covers advanced routing and infrastructure technologies, expanding on the topics covered in the Implementing and Operating Enterprise Network Core Technologies course. Lab

required. Prerequisite / Concurrent Enrollment: ITCC 2377 or consent of Associate Dean/Director. 3 credit hours. (W)

ITMT 1371 Configuring and Supporting Microsoft Windows 10 (MD-100)
Addresses the implementation and desktop support needs of customers that are planning to deploy and support Microsoft Windows 10 in a variety of stand-alone and network operating system environments. In-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows 10. Lab required. Prerequisite: ITNW 1358 or consent of Associate Dean/Director. 3 credit hours. (W)

ITNW 2375 VMware vSphere: Installation, Configuration, and Management
A study of Virtualization in computer network technology. The course covers the installation, configuration, and management of VMware vSphere, which consists of VMware vSphere ESXi and VMware vCenter Server. Lab required. Prerequisite: ~~ITCC 1344 and ITMT 1373, or consent of Associate Dean~~ ITCC 1344, or ITNW 1354, or ITSC 1316, or consent of Associate Dean/Director. 3 credit hours. (W)

ITNW 2378 Fundamentals of IoT
This course covers standards, devices, protocols, and security concepts necessary to design, deploy, and troubleshoot IoT solutions. Lab required. Prerequisite: ~~ITNW 1309, ITNW 2371, and ITSC 1342~~ ITSE 1359. 3 credit hours. (W)

ITSC 1316 Linux Installation and Configuration
Introduction to Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux. Lab required. Prerequisite: ITNW 1358 or consent of the Associate Dean/Director. 3 credit hours. (W)

ITSY 2300 Operating System Security
Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards. Lab required. Prerequisite: ITNW 1358. ~~ITMT1372 is strongly recommended.~~ 3 credit hours. (W)

ITSY 2301 Firewalls and Network Security
Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network

security plan. Examine security incident postmortem reporting and ongoing network security activities. Lab required. Prerequisite: ITSY 2300 or consent of the Associate Dean/Director. 3 credit hours. (W)

ITSY 2341 Security Management Practices
In-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network security design; and developing and maintaining a security plan. Lab required. Prerequisite: ITSY 2300 or consent of Associate Dean/Director. ITSY 1300 is strongly recommended. 3 credit hours. (W)

ITSY 2342 Incident Response & Handling
In-depth coverage of incident response and incident handling, including identifying sources of attacks and security breaches; analyzing security logs; recovering the system to normal; performing postmortem analysis; and implementing and modifying security measures. Lab required. Prerequisite: ITSY 2300 or consent of Associate Dean/Director. 3 credit hours. (W)

ITSY 2343 Computer System Forensics
In-depth study of system forensics including methodologies used for analysis of computer security breaches. Collect document and evaluate evidence to perform postmortem analysis of a security breach. Lab required. Prerequisite: ITSY 2342, or ITSY 2330, or consent of Associate Dean/Director. 3 credit hours. (W)

ITSY 2572 Certified Information Systems Security Professional (CISSP) Common Body Of Knowledge Domain Instruction
An in-depth study of the 10 domains which make up the Common Body of Knowledge (CBK) of information security professionals. The course is designed to instruct individuals to implement solid security practices, perform risk analysis, identify necessary countermeasures, and help the enterprise as a whole protect its facility, network, systems, and information. Prerequisites: ITSY 1300 and ITSY 2300, or equivalent experience and consent of Associate Dean/Director. 5 credit hours. (W)

ITSY 2575 Certified Information Security Manager (CISM)
An in-depth study of the five domains covered on the ISACA* – CISM professional certification exam. Each domain (Information Security Governance, Information Risk Management, Information Security Program Development, Information Security Program Management, and Incident Management and Response) covers the knowledge and tasks that cybersecurity professionals are expected to know how to perform in the workplace.*Previously known as Information Systems Audit and Control Association. Prerequisite: ITSY 1300 or ITSY 2300 or equivalent experience and consent of Associate Dean/Director. 5 credit hours. (W)

PHYS 1402 College Physics II
Lecture: Fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Lab: Laboratory activities will reinforce fundamental principles of physics, using algebra and trigonometry; the principles and applications of electricity and magnetism, including circuits, electrostatics, electromagnetism, waves, sound, light, optics, and modern physics topics; with emphasis on problem solving. Lab required. Prerequisite: PHYS 1401 in the last five years with a grade of C or better. 4 credit hours. (A)