



Student Catalog Addendum

This catalog addendum amends the Tuition and Fee Schedule on page 89 and Academic Calendar on pages 91-92, of the 2020 Student Catalog Rev 2-2020, and adds the Cloud Computing and Cybersecurity Associate Program to IBT's Programs of Study.

Tuition and Fee Schedule

Program	Tuition	Reg. Fee	Books	Uniforms	Supplies	Student Tuition Recovery Fund (1)	Total
Cloud Computing and Cybersecurity Associate	\$31,450.00	\$75	\$900.00	N/A	\$3,025.00	\$0.00	\$35,450.00
Commercial Refrigeration, Heating and Air Conditioning	\$15,448.00	\$50	\$118.00	\$27.00	\$252.00	\$0.00	\$15,895.00
Electrician	\$16,103.00	\$50	\$611.00	\$27.00	\$159.00	\$0.00	\$16,950.00
Lab Assistant, EKG Technician/Phlebotomist	\$13,590.00	\$50	\$345.00	\$41.00	\$264.00	\$0.00	\$14,290.00
Medical Assistant	\$12,266.00	\$50	\$522.00	\$41.00	\$346.00	\$0.00	\$13,225.00
Medical Biller and Coder/Office Specialist	\$11,565.00	\$50	\$515.00	N/A	\$713.00	\$0.00	\$12,843.00
Massage Therapy* (2)	\$12,999.00	\$50	N/A	N/A	N/A	\$0.00	\$13,049.00
Ultrasound Technician/Diagnostic Medical Sonographer*	\$33,720.00	\$50	\$942.00	\$41.00	\$742.00	\$0.00	\$35,495.00

(1) See School Catalog for disclosure information about Student Tuition Recovery Fund.

(2) Books and Supplies are included in Cost of Tuition.

*IBT is not currently accepting enrollments for this program.

Academic Calendars – 2021 Start Dates

CLOUD COMPUTING AND CYBERSECURITY ASSOCIATE

Start Date	Graduation Date
1/25/2021	10/30/2022
4/26/2021	1/29/2023
7/26/2021	4/30/2023
10/25/2021	7/30/2023
1/24/2022	10/29/2023

ELECTRICIAN

Start Date	Graduation Date
1/11/2021	10/28/2021
2/22/2021	12/9/2021
4/5/2021	2/3/2022

5/17/2021	3/17/2022
6/28/2021	4/28/2022

HVAC

Start Date	Graduation Date
1/18/2021	11/4/2021
3/1/2021	12/16/2021
4/12/2021	2/10/2022
5/24/2021	3/24/2022
7/5/2021	5/5/2022

LAB ASSISTANT, EKG TECHNICIAN/PHLEBOTOMIST; MEDICAL ASSISTANCE, MEDICAL BILLER AND CODER/OFFICE SPECIALIST

Start Date	Graduation Date
1/25/2021	9/30/2021
2/22/2021	10/28/2021
3/22/2021	11/25/2021
4/19/2021	1/6/2022
5/17/2021	2/3/2022
6/14/2021	3/3/2022

New Program

CLoud COMPUTING & CYBERSECURITY ASSOCIATE

Associate of Occupational Studies (AOS) Degree, 74 Semester Credits, 92 Weeks

Hybrid Online Program

Program Overview:

The Cloud Computing & Cybersecurity Associate program resulting in an Associate of Occupational Studies degree prepares the student for entry to the field of computer network support and administration. The student will learn, engage, and practice skills in operating systems, applications, on-premise networks, cybersecurity, and cloud computing. In addition, students will learn to plan and carry out security measures to protect an organization's computer networks and systems. The program is dedicated to training students on the various facets of the professional network support specialists' duties including analysis, troubleshooting, testing, maintenance, and evaluation of existing on-premise local area networks (LAN), wide area networks (WAN), and on-cloud virtual private networks. The program is delivered in a blended format.

Educational Objectives:

- Prepare students to manage computer hardware and software installation and support
- Provide students with the opportunity to practice and evaluate local, wide, and cloud network design, implementation, administration, security, and support
- Provide students with on-premise and cloud information technology education, which includes coursework in various IT modalities including network server installation, network design, configuration, support, and security applications
- Prepare students for successful entry into the Information Technology administration field
- Provide students with the communication and interpersonal skills required to work effectively within work teams
- Develop the tools to conduct job searches and learn effective interview techniques

Potential job titles include Computer User Support Specialists, Computer Network Support Specialists, Information Security Analyst, Network System Administrator, Cloud Technologist, and Computer Network Architects. DOTCODE: 033.362-010. Please see the end of this program description for a list of other possible job titles with their assigned Standard Occupation Classification (SOC) Codes. Graduates of this program may want to consider these other SOC job titles as potential entry-level job opportunities to pursue upon graduation.

Program Length Information:

The Cloud Computing & Cybersecurity Associate program is 92 weeks in length.

Full-time students – normal program length is 92 weeks – Maximum Time Frame is 138 weeks.

Part-time students – IBT does not offer part time programs.

Hybrid Online Time Commitment: Students should assume a weekly time commitment of roughly 20 hours. The lecture portion of the 12 technical modules is delivered fully online, with a traditional on-campus requirement for the lab portion. Lab work requires students to be on campus three times per module – on Saturdays. The four general education courses are delivered online with no on-campus requirement. This program takes advantage of the various methods and forms of learning through online content delivery and on-ground lab work to create a multi-layered environment for student interaction, teacher/student interaction and expert insight.

Course Listings:

Course Number	Course Title	Classroom Clock Hours	Lab Clock Hours	Total Instructional Clock Hours	Semester Credit Hours
CMST 1310	Introduction to Communications	80	0	80	5
MATH 1314	College Algebra	80	0	80	5
PSYC 1318	General Psychology	80	0	80	5
ENGL 1301	English Composition	80	0	80	5
Total General Education		320	0	320	20
IT 1101	Computer Hardware & Troubleshooting	60	15	75	4.5
IT 1102	Computing Concepts & Applications	60	15	75	4.5
IT 1103	Computer Networking Concepts	60	15	75	4.5
IT 1104	Linux System Administration	60	15	75	4.5
IT 1105	Network Resource Administration	60	15	75	4.5
IT 1106	Computer Security Fundamentals	60	15	75	4.5
IT 2201	Routing & Switching	60	15	75	4.5
IT 2202	Data Management and Security	60	15	75	4.5
IT 2203	Network Security	60	15	75	4.5
IT 2204	Architecting on the Cloud	60	15	75	4.5
IT 2205	System Operations on the Cloud	60	15	75	4.5
IT 2206	Security on the Cloud	60	15	75	4.5
Total Core		720	180	900	54
PROGRAM TOTAL		1040	180	1220	74

Course Descriptions:

General Education Courses

CMST 310 Introduction to Communications

This course is designed to introduce students to the study of human communication. Students will explore theories and models of communication and examine human communication in a variety of contexts including interpersonal relationships, groups, intercultural and gender contexts, public speaking, and public communication. By the end of this course, students should also be able to identify and describe significant features of human communication scholarship in both the academic and broader social arena. **Credit hours: 5, Clock hours: 80, Prerequisites: None**

MATH 1314 College Algebra

In this course, students will identify and operate with absolute value equations and inequalities, will acquire graphing skills, inverse functions, logarithmic and exponential functions, polynomial and rational functions, piecewise defined functions, theory of equations and matrices. Course prepares students for an intermediate algebra course by covering the fundamental concepts, operations, and applications of basic algebra. Algebraic topics include systems of linear equations and inequalities, polynomial operations, graphing equations and inequalities in two variables, and systems of equation. Course surveys algebraic and exponential functions.

Credit hours: 5, **Clock hours:** 80, **Prerequisites:** None

PSYC 1318 General Psychology

This course is a broad survey of the major topics in psychology including, but not limited to, research methodology, biological and social factors influencing behavior, development, learning, memory, personality and abnormal psychology. This course introduces students to psychology as a systematic and scientific way to think about the biological and social aspects of behavior and mental processes.

Credit hours: 5, **Clock hours:** 80, **Prerequisites:** None

ENGL 1301 English Composition

This course develops written communication skills with an emphasis on understanding the writing process, analyzing reading, and practicing writing for personal and professional applications.

Credit hours: 5, **Clock hours:** 80, **Prerequisites:** None

Core Courses

IT 1101 Computer Hardware & Troubleshooting

This course provides a comprehensive foundation in understanding PC desktop components. Students will learn how the components work together, how to troubleshoot, install and replace them. These skills are expected from any PC desktop, helpdesk, and network support technician. The covered material of this course is related to the industry certification CompTIA A+.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** None

IT 1102 Computer Concepts and Applications

This course provides foundation in information technology concepts, operating system functions and computer applications. The course also includes topics in computer ethics, computer security and HTML (Creating a Website).

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101

IT 1103 Computer Networking Concepts

This course provides a comprehensive foundation in networking concepts and technologies. Students will learn how to use, install and configure basic networking technologies as would be expected from a network support technician or network administrator.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102

IT 1104 Linux System Administration

This course focuses on the installation, configuration and administration of the Linux operating system. It emphasizes the use of Linux as a network client and workstation in a secure environment.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103

IT 1105 Network Resource Administration

This course focuses on the management of local area network servers. Teaches proper structuring of security systems. Explains print queues, disk management, and other local area network (LAN) issues. Presents concerns and issues for the purchase and installation of hardware and software upgrades. The course can be taught using any network operating system or a range of operating systems as a delivery tool.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1104

IT 1106 Computer Security Fundamentals

This course provides instruction in the basics of computer and network security. It includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. It also includes instruction on security keys, confidentiality, integrity, availability, accountability and auditability.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1105

2201 Routing & Switching

This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, participants will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1104, IT 1105, IT 1106

IT 2202 Data Management and Security

This course provides the foundational information, concepts, and background knowledge that students need to understand the basic underlying infrastructure that database storage systems are running on. Students learn how database servers work with operating systems. Explore hardware, from CPU to drives, strengths and weaknesses of different types of storage, and memory options. The course also provides foundational knowledge of Big Data systems and data security concepts, **Clock hours:** 75, **Credit hours:** 4.5

Prerequisites: IT 1101, IT 1102, IT 1103, IT 1104, IT 1105, IT 1106

IT 2203 Network Security

This course provides students with in-depth study and practice of advanced concepts in applied systems and networking security, including security policies, access controls, IP security, authentication mechanisms, and intrusion detection and protection. It provides students with an in-depth view on strategies of communication and network and cybersecurity.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1104, IT 1105, IT 1106

IT 2204 Architecting on the Cloud

This course provides students with the fundamentals of building IT infrastructure on the cloud. Student will learn how to optimize cloud technologies by understanding cloud services and how they fit into cloud-based solutions. Student will explore cloud best practices and design patterns to architect optimal IT solutions on popular cloud platforms. Student will also examine case studies that show how organizations have designed their infrastructures and the strategies and services they implemented. Student will build and explore a variety of infrastructures through a guided, hands-on activity.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1104, IT 1105, IT 1106

IT 2205 System Operations on the Cloud

This course teaches students how to create automatable and repeatable deployments of networks and systems on popular cloud platforms. Course will explore the cloud features and tools related to configuration and deployment and common techniques for configuring and deploying systems in the cloud.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1104, IT 1105, IT 1106

IT 2206 Security on the Cloud

This course provides students with the opportunity to learn how to efficiently use cloud security services to stay secure and compliant in the cloud. Course will focus on recommended security best practices that students can implement to enhance the security of data and systems. Course will explore security features of popular cloud services providers, key services, including compute, storage, networking, and database services. Course will also consider common security control objectives and regulatory compliance standards and examine use cases for running regulated workloads across different verticals, globally. In this course, student will learn how to leverage cloud services and tools for automation and continuous monitoring—taking security operations to the next level.

Clock hours: 75, **Credit hours:** 4.5, **Prerequisites:** IT 1101, IT 1102, IT 1103, IT 1104, IT 1105, IT 1106

Job titles (with SOC codes) to possibly consider as potential entry-level job opportunities to pursue upon graduation:

*Standard Occupational Classification (SOC)	Employment Position
15-1151	Computer User Support Specialists
15-1152	Computer Network Support Specialists
15-1122	Information Security Analyst
15-1142	Network & Computer System Administrator
15-1299	Cloud Technologist
15-1241	Computer Network Architects
15-1211	Computer Systems Analysts
11-3021	Computer and Information Systems Managers

* All SOC codes are accurate for the 2018 system and are available at: <http://www.bls.gov/soc/#classification>