



VISTA COLLEGE ONLINE CAMPUS

YOUR PATH TO A BETTER LIFE STARTS WITH ONLINE CAREER TRAINING AT HOME

ASSOCIATE OF APPLIED SCIENCE DEGREE IN INFORMATION SYSTEMS SECURITY AND ASSURANCE ONLINE

The online Associate of Applied Science in Information Systems Security and Assurance is designed to prepare students for entry-level employment in the Information Security field by providing students with the skills needed to plan and carry out security measures to protect an organization's computer network and systems. The associate degree program provides a combination of academic theory through the general education courses and technical skills through the technical courses that are necessary for today's computer environment. Graduates will leave the program with the hands-on experience and the customer-service skills expected by today's employers. Program objectives include: (1) analyzing a problem and identifying and defining the computing requirements appropriate for its solution, (2) functioning successfully in a professional environment, (3) communicating effectively with a range of audiences, and (4) effectively integrating security measures into the user environment. Graduates of this program are prepared to seek employment in entry-level positions in the information systems security and cyber security branches of any organization, such as the systems security specialist, systems security administrator, junior systems security engineer, junior cyber security engineer, or any IT network systems positions bearing security responsibilities. Upon completion of the program, an Associate of Applied Science degree is awarded.

COURSE DETAILS

COURSE NO.	COURSE TITLE	THEORY HRS.	LAB HRS.	QUARTER CREDIT
				HRS.
ITCC 1452-O	Network Security Fundamentals	15	60	4.5
ITCC 1453-O	Security Policies and Implementation Issues*	25	40	4.5
ITCC 1454-O	Security Strategies in Windows Platforms and Applications*	25	40	4.5
ITCC 1455-O	Security Strategies in Web Applications and Social Networking*	25	40	4.5
ITCC 2452-O	Network Security	15	60	4.5
ITCC 2453-O	Access Control, Authentication, and PKI*	25	40	4.5
ITCC 2454-O	Hacker Techniques, Tools, and Incident Handling*	25	40	4.5
ITCC 2455-O	System Forensics, Investigation, and Response*	25	40	4.5
ITNW 1453-O	Legal Issues in Information Security*	25	40	4.5
ITNW 2454-O	Managing Risk in Information Systems*	25	40	4.5
ITNW 2455-O	Auditing Infrastructures for Compliance*	25	40	4.5
ITSC 1453-O	Computer Ethics	45	00	4.5
ITSY 2450-O	Network Security, Firewalls, and VPNs	25	40	4.5
POFT 1450-O	Professional Strategies	45	00	4.5
POFT 4451-O	Career Strategies	45	00	4.5
GENERAL EDUCATION COURSES				
COSC 1451-O	Computer Science	45	00	4.5
ENGL 1451-O	English Composition I	45	00	4.5
MATH 2451-O	Contemporary Mathematics	45	00	4.5
PSYC 2451-O	General Psychology	45	00	4.5
SPCH 2451-O	Speech Communication	45	00	4.5
TOTAL		640	520	90.0

TOTAL CLOCK HOURS: 1160

ESTIMATED COMPLETION TIME: 100 WEEKS

* Indicates prerequisite exists. Student must complete the prerequisite course prior to entry into this course or have the instructor's permission to enter the course.



COURSE DESCRIPTIONS

ITCC 1452-O NETWORK SECURITY FUNDAMENTALS

CONTACT HOURS: THEORY - 15 LAB - 60 (75 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on security components, common vulnerabilities, defenses, virtualization, and topics of increasing importance in the industry as a whole. Emphasis will be placed on data, host security, and wireless security components. The student will be required to plan, administer, and evaluate workstation and network security.

ITCC 1453-O SECURITY POLICIES AND IMPLEMENTATION ISSUES

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O

This course focuses on providing students with knowledge of security challenges and strategies of countermeasure in the information systems environment. Emphasis is placed on technical terminology concepts, elements, and goals incorporating industry standards and practices. Additional topics include the availability, vulnerability, integrity, and confidentiality aspects of information systems.

ITCC 1454-O SECURITY STRATEGIES IN WINDOWS PLATFORMS AND APPLICATIONS

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O

This course focuses on security implementations for various Windows platforms and applications. Emphasis is placed on identifying and examining security risks, security solutions, and tools.

ITCC 1455-O SECURITY STRATEGIES IN WEB APPLICATIONS AND SOCIAL NETWORKING

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O

This course focuses on the how Internet and Web-based applications have transformed the way businesses, organizations, and people communicate and the new risks, new threats, and new vulnerabilities for Web-based applications that are the result of this transformation. Emphasis is placed on security strategies to mitigate these risks.

ITCC 2452-O NETWORK SECURITY

CONTACT HOURS: THEORY - 15 LAB - 60 (75 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O (for Information Technology only)

This course focuses on the overall security processes with particular emphasis on skills in the following areas: security policy design and management; security technologies; products and solutions; firewall and secure router design, installation, configuration, and maintenance.

ITCC 2453-O ACCESS CONTROL, AUTHENTICATION, AND PKI

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O

This course focuses on access control of information systems, applications, authentication, and accounting for end users and systems administrators. Emphasis is placed on security controls including tokens, biometrics, and the use of public key infrastructures (PKI).

ITCC 2454-O HACKER TECHNIQUES, TOOLS, AND INCIDENT HANDLING

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O, ITCC 2452-O

This course focuses on providing students with the knowledge and the practice needed to secure information systems against attacks such as viruses, worms, and other system weaknesses that pose a significant danger to organizational data. Methods in incident handling when information security is compromised are introduced.

ITCC 2455-O SYSTEMS FORENSICS, INVESTIGATION, AND RESPONSE

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O, ITCC 2453-O

This course focuses on the methods of system forensics investigation and response. Emphasis is placed on procedures for investigating computer cybercrime and concepts for collecting, analyzing, recovering, and preserving forensic evidence.

ITNW 1453-O LEGAL ISSUES IN INFORMATION SECURITY

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O

This course focuses on the legal processes involved in implementing and maintaining information systems security. Emphasis is placed on security violations and breaches in relation to pertinent laws and regulations. Case studies are presented to give students experience in analyzing the legal impact on information security issues.

ITNW 2454-O MANAGING RISK IN INFORMATION SYSTEMS

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITCC 1452-O

This course focuses on risk management and how risk, threats, and vulnerabilities impact information systems. Emphasis is placed on how to assess and manage risk based on defining an acceptable risk level for information systems, elements of a business impact analysis, business continuity plans, and disaster recovery plans.

ITNW 2455-O AUDITING INFRASTRUCTURES FOR COMPLIANCE

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: ITNW 1453-O

This course focuses on the principles, the approaches, and the methodology in auditing information systems to ensure that processes and procedures are in compliance with pertinent laws and regulatory provisions especially in the context of information systems security (ISS).

ITSC 1453-O COMPUTER ETHICS

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on the ethical issues that apply to computer-related professions, intellectual property and privacy issues, professional responsibility, and the effects of globalization. Emphasis is placed on defining ethics, identifying ethical issues, explaining intellectual property issues within computer information technology, and explaining professional responsibility as it relates to computer ethics.

ITSY 2450-O NETWORK SECURITY, FIREWALLS, AND VPNS

CONTACT HOURS: THEORY - 25 LAB - 40 (65 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on the private network (VPNs) and firewalls for securing a network. Emphasis is placed on various network security related issues such as benefits, architecture, and the use of firewalls in tackling security problems in the context of how to construct, configure, and administer a firewall.

POFT 1450-O PROFESSIONAL STRATEGIES

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on the skills required to be successful in college and in your career. Emphasis is on time management, goal setting, and research techniques.

POFT 4451-O CAREER STRATEGIES

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on career planning and job searching. Emphasis is on writing effective resumes, sources of job leads, techniques for successful interviewing, and the follow-up process in the career search.

GENERAL EDUCATION COURSES

COSC 1451-O COMPUTER SCIENCE

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on various information and communication technologies. Emphasis is placed on how information systems are used to solve problems.

ENGL 1451-O ENGLISH COMPOSITION I

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

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

MATH 2451-O CONTEMPORARY MATHEMATICS

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on the treatments of sets, logic, number systems, number theory, relations, functions, probability and statistics.

PSYC 2451-O GENERAL PSYCHOLOGY

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on human behavior. Emphasis is placed on biological foundations, the brain, sensation, perception, motivation, personality, learning/memory, emotion, states of consciousness, personality theories, cognition, life-span development, and applied psychology.

SPCH 2451-O SPEECH COMMUNICATIONS

CONTACT HOURS: THEORY - 45 LAB - 0 (45 HOURS)

TOTAL QUARTER CREDIT HOURS: 4.5

PREREQUISITES: NONE

This course focuses on human communication principles and theories embedded in a variety of contexts including interpersonal, small group, and public speaking.