

# York Technical College - Course Syllabus

## **Course Information**

Course Prefix/Number: IST 293  
Course Title: IT and Data Assurance I  
Lecture Hours/Week: 3.0  
Lab Hours/Week: 0.0  
Credit Hours/Semester: 3.0

## **DL Attendance/VA Statement Textbook Information**

**Course Description:** This course introduces the basics of network security. Topics covered will include network vulnerabilities and threats, security planning, security technology, network security organization, as well as legal and ethical issues related to network security.

### **Course Competencies:**

Upon successful completion of this course, the student should be competent to perform the following tasks:

#### **Module 1 – Introduction to Security**

Relate the history of network security.  
Demonstrate a working knowledge of the NSTISSC security model.  
Describe the security systems development life cycle.  
Identify basic attacks and threats to an organization.  
Describe the different types of laws relating to security.  
Differentiate policies and laws.  
Write a code of ethics.

#### **Module 2 – Risk Management and Security Planning**

Identify common security risks.  
Select a risk control strategy.  
Describe security risks documentation.  
Create a security policy that includes EISP, ISSP, and SysSP.  
Describe VPN and firewall technologies.  
Scan networks for security breaches.  
Describe intrusion detection methods.  
Identify access control devices and methods.  
Describe the history of cryptography and basic principles of cryptography.  
Demonstrate a working knowledge of PKI, digital signatures, and digital certificates.  
Identify methods of attacks on cryptosystems.

#### **Module 3 – Implementing Information Security**

Describe the need for ensuring physical security.  
Relate methods of ensuring physical security.  
Develop a project plan for implementing information security.  
Describe the bull's eye model for information security project planning.  
List the characteristics of various security-related certifications.  
Demonstrate a basic knowledge of employment policies and practices.  
Explain security considerations for non-employees as well as new hires.  
Describe the ISO network management model.  
Describe the maintenance model.

### **Minimal Standards/Performance Objectives**

Students must read the assigned material prior to class and complete all assignments. The instructor will discuss the concepts and demonstrate the methods as appropriate. Students must participate in independent as well as team activities. Students may exempt a module by completing both theory and performance pre-assessments, if applicable, with a score of at least 80% on each assessment. Students who do not exempt the modules through pre-assessment must complete each module, learning activities, and post-assessment. Computer Technology students must attain a grade of "C" or better in this course for the degree and certificates.

## Course Requirements

### *Attendance*

The student will attend class as stated in the York Technical College Handbook's attendance policy. Online students will participate in discussions and complete all assigned activities in a timely manner as evidence of virtual class attendance.

### *Academic Integrity*

The student is bound by the policies stated in the York Technical College Catalog and Handbook. A student violating these policies will be subject to academic discipline.

### *Evaluation Strategies and Grading*

Grades will be based on the average of the three module assessments.

The following scale will be the standard:

Score:	Grade:
90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
<60	F

Final Grade:

<b>Module 1 Assessment</b>		<b>% Module Grade</b>	<b>Course Grade</b>
Theory/Performance Test	100	70%	
Homework & Learning Activities	100	20%	
Discussions	<u>100</u>	<u>10%</u>	
Module Grade		100%	33.3%
<b>Module 2 Assessment</b>		<b>% Module Grade</b>	
Performance Tests/Projects (maximum of 3)	100	70%	
Theory Test	100	20%	
Homework & Learning Activities	<u>100</u>	<u>10%</u>	
Discussions		100%	
Module Grade			33.3%
<b>Module 3 Assessment</b>		<b>% Module Grade</b>	
Performance Test (maximum of 3)	100	70%	
Theory Test	100	20%	
Homework & Learning Activities	<u>100</u>	<u>10%</u>	
Discussions		100%	
Module Grade			33.4%
<b>Final Grade</b>			100.0%

### *Entry Level Skills*

Keyboarding ability and fundamentals of the Windows operating system.

### *Prerequisites*

IST 202 and IST 291

### *Co-Requisites*

None