

# 2024-2025 TTC Catalog - Information Systems Technology (IST)

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## **IST 165 - Implementing and Administering Windows Directory Services**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course is a study of directory services covering the planning, design, installation, configuration and administration of a network directory structure. This course covers the objectives of the associated Microsoft certification exam.

### **Prerequisite**

IST 166

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 166 - Network Fundamentals**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course is a study of local area networking concepts through discussions on connectivity, communications and other networking fundamentals. The course is designed to prepare the student to be successful in completing industry network fundamental certification exams. This course covers the content included in the CompTIA Network + certification exam.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 190 - Linux Essentials**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course provides students with the fundamental knowledge and concepts of the Linux operating system, including command line functions, file systems, user and group administration, process management, text editors, and network applications. This course helps students prepare for the CompTIA Linux+ certification exam.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 191 - Linux System Administration**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course provides students with the skills necessary to administer a Linux system, including hardware/software configuration, user and group administration, Linux network configuration, and file system management. This course helps students prepare for the RedHat Certified Systems Administrator (RHCSA) certification exam.

### **Prerequisite**

IST 190

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 193 - Linux Security Administration**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course will provide students with the skills necessary to implement and administer basic LINUX security policies, including authentication, securing network applications, system monitoring, encryption, and others.

**Prerequisite**

IST 191

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 198 - Cloud Essentials**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

Summer

This course is a study of Cloud computing as a framework for providing network access to shared computing resources including storage, network, server and virtualization infrastructures.

**Prerequisite**

IST 166

or

IST 190

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 201 - Cisco Internetworking Concepts**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

This course is a study of current and emerging computer networking technology. Topics include safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI model, cabling tools, Cisco routers, router programming, star topology, IP addressing, and network standards. This helps prepare students for the Cisco Certified Network Associate (CCNA) credential.

**Prerequisite**

IST 166

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 202 - Cisco Router Configuration**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall

Spring

This course is a study of LANs, WANs, OSI model, Ethernet, token ring, FDDI, TCP/IP protocol, dynamic routing, and the network administrator's role and function. This helps prepare students for the Cisco Certified Network Associate (CCNA) credential.

### **Prerequisite**

IST 201

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 203 - Advanced Cisco Router Configuration**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Spring

This course is a study of configuring Cisco routers. This helps prepare students for the Cisco Certified Network Associate (CCNA) credential.

### **Prerequisite**

IST 202

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 206 - Cisco Remote Access**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Summer

This course is a study of building a remote access network to interconnect central sites to branch offices and home office/telecommuters, control access to the central site and maximize bandwidth utilization over the remote links. This course provides an in-depth

understanding of network infrastructure security. This include configuring Hardware Firewalls, Virtual Private Network (VPN) tunnels, protecting Layer-2 switchports, Implementing intrusion prevention, and network device authentication authorization, and accounting.

**Prerequisite**

IST 202

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 209 - Fundamentals of Wireless LANs**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

This introductory course is the study of design, installation, configuration, operations and troubleshooting of wireless LANs. The course includes an overview of wireless technologies, standards, devices, security, design and best practices, emphasizing real-world applications and skills. This helps prepare students for the Cisco Certified Network Associate (CCNA) wireless credential.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 235 - Handheld Computer Programming**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

This course is a survey of the techniques of rapid application development for handheld devices. Topics include setup of development environment, creation and deployment of programs, and design strategies to overcome memory and interface limitations. The focus of the course will be the development of software for the Android mobile phone.

**Prerequisite**

IST 239

with a minimum grade of C

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 239 - Datum and JavaScript**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course includes concepts and skills for developing dynamic functionality and interactivity for websites using JavaScript: variables, operators, conditionals, functions, objects (image and form), properties, methods, cookies, frames and arrays. This course covers the basics of the JavaScript language, how to place JavaScript into an HTML file and advanced JavaScript topics such as event handlers, arrays, forms and cookies.

### **Prerequisite**

CPT 162  
and  
CPT 114

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 253 - LAN Service and Support**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course focuses on installing, maintaining and troubleshooting local area networks in a lab environment. This course covers an introduction to virtualization technologies and vendors including VMware, Microsoft and Citrix.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 260 - Network Design**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring

Summer

This course is a study of the processes and techniques required to identify the most attractive design solution of a telecommunications network combining creativity, rigorous discipline, analysis, and synthesis while emphasizing the solution in terms of cost and performance.

**Prerequisite**

IST 165

and

IST 166

and

IST 190

and

IST 202

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 272 - Relational Database**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

This course provides a comprehensive foundation in both SQL and relational database design and implementation. Dynamic and embedded SQL programming techniques are emphasized. Additional topics include forms developer, triggers, stored procedures and PL/SQL programming.

**Prerequisite**

CPT 202

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 274 - Database Administration**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Spring

This course is a study of the duties and responsibilities of a database administrator. The course covers setting up, maintaining, and troubleshooting a distributed, multi-user database.

**Prerequisite**

CPT 202

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 286 - Technical Support Internship I**

**Lec:** 0 **Lab:** 9.0 **Credit:** 3.0

**Course Offered**

Fall

Spring

Summer

This course is an entry-level technical support/help desk internship. Students intern at the college's help desk and provide support to faculty and staff. Students will participate in weekly evaluation sessions of calls and solutions.

**Prerequisite**

CPT 209

and

IST 165

and

departmental approval

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 290 - Special Topics in Information Sciences**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Summer

This course covers special topics in information sciences technologies.

Departmental approval

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 291 - Fundamentals of Network Security I**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Spring  
Summer

This course is a study of introductory levels of security processes based on a security policy, emphasizing hands-on skills in the area of secure perimeter, security connectivity, security management, identity services and intrusion detection. The course prepares students to manage network security. This course covers the objectives associated with the CompTIA Advanced Security Practitioner (CASP) certification exam.

### **Prerequisite**

IST 190  
and  
IST 293

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 293 - IT and Data Assurance I**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

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. This course will provide coverage of the objectives associated with the CompTIA Security+ certification.

### **Prerequisite**

IST 166

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **IST 294 - IT and Data Assurance II**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Spring  
Summer

This course introduces methods for attacking a network. Concepts, principles, tools and techniques for attacking and disabling a network will be covered in the context of understanding how to properly secure a network as a network administrator. This course will provide coverage of the learning objectives associated with the EC-Council Certified Ethical Hacker certification. Topics such as social engineering, physical security and logistics will also be discussed.

**Prerequisite**

IST 190  
and  
IST 293

**Grade Type:** Letter Grade

**Division:** Business Technology

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**IST 298 - Advanced Cloud Computing**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Spring

This course covers advanced concepts of cloud computing. Topics include how to implement, administer and troubleshoot private and public cloud services, delivery models, virtualization infrastructures, storage and networks.

**Prerequisite**

IST 198

**Grade Type:** Letter Grade

**Division:** Business Technology

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