

IST — Computer & Info Systems

IST 162 Intro to Workstation Net Admin 2 - 3 - 3 **Prerequisites:** IST 202

This course is an introductory study of the administration of a single and multiple domain networks. Tasks will include handling user group accounts, resource management, permissions, ownership assignments, printing, security and backup.

IST 165 Implem & Admin Wind Dir Serv 2 - 3 - 3 **Prerequisites:** IST 162 or IST 269

This course is a study of directory services covering the planning, design, installation, configuration and administration of a network directory structure.

IST 190 LINUX Essentials 2 - 3 - 3

This course will provide 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.

IST 192 LINUX Network Applications 2 - 3 - 3 **Prerequisites:** IST 190

This course will provide students with the skills necessary to deploy and administer the core networking services in a LINUX system, such as Apache Web Server, Samba File Server, BIND Domain Name Service, NFS, and others.

IST 196 Cloud Storage Fundamentals 2 - 3 - 3

This course is the study of network and cloud-based storage technologies, cloud computing networks, and data management processes in a storage environment. The course prepares students to provide network and cloud-based storage support to businesses.

IST 201 CISCO Internetworking Concepts 2 - 3 - 3

This course is a study of current and emerging computer networking technology. Topics covered include safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI models, cabling, cabling tools, CISCO routers, router programming, star topology, IP addressing, and network standards.

IST 202 Cisco Router Configuration 2 - 3 - 3 **Corequisites:** IST 201

This course is a study of LANs, WANs, OSI models, Ethernet, token ring, fiber distributed data interface TCP/IP addressing protocol, dynamic routing, routing, and the network administrator's role and function.

IST 203 Adv CISCO Router Configuration 2 - 3 - 3 **Prerequisites:** IST 202

This course is a study of configuring CISCO routers.

IST 204 CISCO Troubleshooting 2 - 3 - 3 **Corequisites:** IST 203

This course is a study of troubleshooting network problems.

IST 215 Health Info Networking 2 - 3 - 3 **Prerequisites:** IST 266

This course studies the application of information technology principles in a health care environment. Topics include electronic health records, medical group LANs and WANs, and effective security and support strategies for medical group networks.

IST 226 Internet Programming 2 - 3 - 3 **Prerequisites:** CPT 187

This course covers designing internet pages and applications for personal/business use, writing the required program code in languages such as HTML, Java, and VRML, testing and debugging programs, uploading and maintaining internet pages and applications.

IST 236 Mobile & Wireless Appliances 2 - 3 - 3 **Prerequisites:** IST 226

This course is a survey of the protocols and interface standards for mobile and wireless appliances accessing the internet. An introduction to development and deployment of applications is included in this course.

IST 261 Adv Network Administration 2 - 3 - 3 **Prerequisites:** IST 165 or IST 291

This course is an advanced study of the networking operating system. Topics include installation upgrades, IP services, internet infrastructure, advanced server management and security, NDS management, and server optimization.

IST 266 Internet & Firewall Security 2 - 3 - 3 **Corequisites:** CPT 282

This course is an introduction to firewalls and other network security components that can work together to create an in-depth defensive perimeter around a Local Area Network (LAN).

IST 268 Computer Forensics 2 - 3 - 3 **Prerequisites:** IST 266

This course provides students with a foundational knowledge in computer forensics investigation. Students are introduced to the skills, tools, and methods used to gather, document, and handle electronic evidence.

IST 269 Digital Forensics 2-3-3

Prerequisites: IST 268

This course examines advanced technical aspects of digital computer evidence to include detection, collection, identification, and preservation. Emphasis is placed on specific tools and methods for extracting deleted or destroyed computer-related evidence.

IST 271 Object Oriented Technologies 2-3-3

Prerequisites: CPT 230

This course emphasizes the application of the object model to design well-structured complex systems. A variety of object-based tools and object-oriented programming languages will be used to implement small-scale projects.

IST 272 Relational Database 2-3-3

This course provides a comprehensive foundation in both SQL and relational database design and implementation. Dynamic and embedded SQL programming techniques are emphasized.

IST 274 Database Administration 2-3-3

Corequisites: IST 272

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.

IST 275 Database Administration II 2-3-3

Prerequisites: IST 274

This course is a study of the duties and responsibilities of a database administrator. The course will include complete and incomplete database backups, restorations, and network administration of databases.

IST 285 Cybersecurity Capstone 3-3-4

Prerequisites: IST 294

Corequisites: IST 295

This course integrates the knowledge and skills gained through previous coursework and experience to develop and implement risk management, vulnerability assessment, threat analysis, and incident response plans.

IST 290 Special Topics in Info Science 2-3-3

Prerequisites: IST 165 and IST 291

This course covers special topics in information sciences technologies.

IST 291 Fund of Network Security I 2-3-3

Prerequisites: IST 162

This course is the study of intro levels of security processes based on a security policy, emphasizing hands-on skills in the areas of secure perimeter, security connectivity, security management, identity services, and intrusion detection. The course prepares students to manage network security.

IST 292 Fund of Network Security II 2-3-3

Prerequisites: IST 291

This course is the study of advanced security processes based on a security policy, emphasizing hands-on skills in the areas of secure perimeter, security connectivity, security management, identity services, and intrusion detection. The course prepares students to install/configure secure firewalls.

IST 293 IT and Data Assurance I 2-3-3

Corequisites: IST 266

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.

IST 294 IT and Data Assurance II 2-3-3

Corequisites: IST 293

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.

IST 295 Fundamentals of Voice Over IP 2-3-3

Prerequisites: IST 291 or IST 204

This course is an introduction to features of Voice over IP protocols, including VOIP hardware selection and network design considerations. Concepts include analog and digital voice encoding signaling and Quality of Service (QoS) and troubleshooting and configuration of VOIP networks.

IST 298 Advanced Cloud Computing 2-3-3

Prerequisites: IST 198

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.