

COMPUTER TECHNOLOGY (COMT)

COMT 11000 INTRODUCTION TO OFFICE PRODUCTIVITY APPS 3 Credit Hours

(Equivalent to MIS 24053) Covers the basic concepts and use of computer systems, including hardware, personal productivity software, Internet usage and file management.

Prerequisite: none.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Business

COMT 11002 VISUAL BASIC PROGRAMMING 3 Credit Hours

Visual Basic.NET language introducing concepts of object-oriented, event-driven program design and implementation.

Prerequisite: COMT 11004.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 11004 SURVEY OF INFORMATION TECHNOLOGY 3 Credit Hours

This overview course will provide an introduction to information technologies, career paths and professional certifications available.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 11005 INTRODUCTION TO OPERATING SYSTEMS AND NETWORKING TECHNOLOGY 3 Credit Hours

Survey of desktop and network OS essentials, including file and disk management, system tools utilization, resource sharing and introductory network concepts.

Prerequisite: none.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 11006 INTRODUCTION TO WEB SITE TECHNOLOGY 3 Credit Hours

Focuses on web site technologies including HTML. Students learn the history of the Internet and effective search techniques.

Prerequisite: COMT 11004.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 11009 COMPUTER ASSEMBLY AND CONFIGURATION 4 Credit Hours

Covers disk operating system functions and features; hardware/software installation procedures; file and directories management; system configuration/optimization; backup procedures.

Prerequisite: COMT 11005 or CS 33211 or DSCI 26010 or TECH 10001.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

COMT 12000 INTERMEDIATE OFFICE PRODUCTIVITY APPS 3 Credit Hours

Covers intermediate concepts and integration of computer applications. Emphasis on software suites, specifically word processing, electronic spreadsheets, database and presentation applications.

Prerequisite: none.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 20001 C++ PROGRAMMING 3 Credit Hours

Course using C++ introducing concepts of software development, object-oriented event-driven programming, testing and debugging, simple and complex data types language syntax and semantics.

Prerequisite: none.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 20011 JAVA PROGRAMMING 3 Credit Hours

Course using Java introducing concepts of software development, object-oriented event-driven programming, testing and debugging, simple and complex data types, language syntax and semantics.

Prerequisite: none.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 20021 C SHARP PROGRAMMING 3 Credit Hours

Introductory concepts of C Sharp: Development environment, variables, decisions, looping, arrays, strings, methods, exception, and event handling.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21002 NETWORK SETUP AND CONFIGURATION 4 Credit Hours

Introduces networking in LAN and WAN environments. Topics include network protocol, configuration, operation, setup, installation, administration, management and security.

Pre/corequisite: COMT 11009.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

COMT 21005 VISUAL BASIC DATABASE PROGRAMMING 4 Credit Hours

Advanced course in the visual basic language focusing on database systems development.

Prerequisite: COMT 11002 or CS 13001 or DSCI 15310 or MIS 24065.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

COMT 21007 INTERNET ETHICS AND POLICIES 3 Credit Hours

Covers the ethics, issues and policies regarding the Internet. It includes discussion/research on intellectual property/freedom, hacking, pornography, privacy, etc.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21008 COMPUTER METHODS IN SCIENCE AND ENGINEERING 3 Credit Hours

Use of computers in problems related to science and engineering. Course will include introduction to elements of a high level scientific language.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21009 SEMINAR IN COMPUTER TECHNOLOGY 3 Credit Hours

Capstone course for COMT students encompassing critical reading, writing and discussion applying the current theories of computer technologies to on-the-job experiences. Students will develop a portfolio to confirm their level of knowledge.

Prerequisite: COMT 11002 and 11005 and 11006 and 11009 and 21002 and 21010.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

COMT 21010 WORKGROUP PRODUCTIVITY SOFTWARE 3 Credit Hours

Research project-oriented course emphasizing workgroup methodologies for group project management, problem definition, data retrieval and analysis, conclusions and recommendations.

Prerequisite: COMT 12000; or ITAP 16639 and 26611.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21011 TECHNIQUES OF MULTIMEDIA WEB DESIGN 3 Credit Hours

Focuses on developing and managing effective web sites using multimedia elements including sound and video.

Prerequisite: COMT 11006 or COMT faculty special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21036 WEB SCRIPTING I 3 Credit Hours

This course will focus on client-side scripting needed to create interactive and dynamic Web sites. The use of scripting in context with various technologies will be explored.

Prerequisite: COMT 11002 and COMT 11006; or CS 13001 and CS 27101; or TECH 26301; or MIS 24065.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21092 COMPUTER PRACTICUM (ELR) 1-3 Credit Hours

(Repeatable for credit) Supervised work experience in information technology environment; 45 hours supervised work experience per credit hour.

Prerequisite: sophomore standing.

Schedule Type: Practicum or Internship

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

COMT 21095 SPECIAL TOPICS IN COMPUTER TECHNOLOGY 1-4 Credit Hours

(Repeatable for credit) Topics announced when scheduled.

Prerequisite: Permission.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

COMT 21096 INDIVIDUAL INVESTIGATION IN COMPUTER TECHNOLOGY 1-4 Credit Hours

(Repeatable for credit) Individual study in computer field. Open to computer technology majors.

Prerequisite: Permission.

Schedule Type: Individual Investigation

Contact Hours: 7-28 other

Grade Mode: Standard Letter

COMT 21100 LOCAL AREA NETWORK TROUBLESHOOTING 3 Credit Hours

Covers local area network troubleshooting techniques. Topics include identifying the scope of the problem, systematic troubleshooting approaches, problem resolution and ongoing maintenance.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21110 INTRODUCTION TO ROUTING AND SWITCHING 3 Credit Hours

Introduces internetworking concepts. Topics include networking standards, cabling, TCP/IP, router configuration, LAN and WAN segments and other related topics.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 21200 ETHICAL HACKING 3 Credit Hours

Tools and techniques ethical hackers and security testers use to discover vulnerabilities and solutions to protect computer networks.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 31002 HEALTH IT SUPPORT 3 Credit Hours

Course covers skills and knowledge required to implement and support healthcare IT (HIT) systems including regulatory and compliance issues; organizational behavior, IT and medical business operations; best practices and security.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 32002 LINUX NETWORKING 4 Credit Hours

Course covering network administration topics with the Linux operating system. Topics include distributions, storage solutions, network services, and current security practices.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

COMT 36095 SPECIAL TOPICS IN COMPUTER TECHNOLOGY 2-3 Credit Hours

(Repeatable for credit) Various special courses will be announced in the schedule of classes under this course number with different section numbers.

Prerequisite: none.

Schedule Type: Lecture

Contact Hours: 2-3 lecture

Grade Mode: Standard Letter

COMT 36301 ADVANCED C++ PROGRAMMING 4 Credit Hours

Course using C++: classes and data abstraction, stream IO, inheritance, standard template library, Microsoft Foundation Classes, system programming concepts using Unified Modeling Language..

Prerequisite: COMT 20001.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

COMT 36302 ADVANCED C SHARP PROGRAMMING 3 Credit Hours

Advanced concepts of C Sharp including classes and objects, inheritance, polymorphism, arrays, exception handling, files and streams and XAML. Prerequisite: COMT 20021.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36303 DIGITAL IMAGE MANIPULATION 3 Credit Hours

Course covers various concepts involved in the creation and manipulation of digital images.

Prerequisite: COMT 11006.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36308 ERGONOMICS IN COMPUTER SYSTEMS 3 Credit Hours

Introduction to ergonomics, usability design, and assessment methods for the development of computer hardware, software, and systems.

Prerequisite: junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36309 PROGRAMMING MOBILE APPLICATIONS 3 Credit Hours

Introduces the unique program design considerations required by mobile device platforms such as PDAs and Smartphones. Practical programming examples will utilize Visual Basic and the .NET Compact Framework.

Prerequisite: COMT 11002 or COMT 20001 or COMT 20021 or CS 13001 or DSCI 15310 or MIS 24065.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36310 MULTIMEDIA DEVELOPMENT TOOLS 3 Credit Hours

Course focuses on advanced technologies for Web development, including DHTML, plug-ins, etc. Students will learn to create more interactive and dynamic web sites.

Prerequisite: COMT 21011.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36311 ADVANCED JAVA PROGRAMMING 4 Credit Hours

Course using Java abstract data types and objects, object-oriented, event-driven design, file organization and access, and systems programming concepts.

Prerequisite: COMT 20011.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

COMT 36314 SEMINAR IN EMERGING COMPUTER AND INFORMATION TECHNOLOGIES 3 Credit Hours

Survey of new and emerging technologies in computer and information technology.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36315 CERTIFICATION PREPARATION IN COMPUTER TECHNOLOGY 3 Credit Hours

(Repeatable for a maximum of 6 credit hours) Certification preparation course to help students prepare for professional certification attempts in Computer Technology. Certification is not guaranteed. Certification fees may apply.

Prerequisite: special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36318 SURVEY OF INFORMATION SECURITY, INTERNET FRAUD AND COMPUTER FORENSICS (WIC) 3 Credit Hours

This lecture-based, survey course provides a non-technical introduction to contemporary issues in information security, Internet fraud and computer forensics.

Prerequisite: ENG 21011 or HONR 10297; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

COMT 36320 COMPUTER FORENSICS 3 Credit Hours

Hands-on skills in incident response, forensic preparation, and data recovery, and analysis. Prerequisite: COMT 21002 or CS 33211 or DSCI 26010 ;or TECH 23010 and TECH 26301

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36321 NETWORK FORENSICS 3 Credit Hours

Emphasizing hands-on skills in live incident response, the proper use of network forensic tools, network monitoring, live data capture, evidence analysis, data integrity and other related topics.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36322 SOCIAL MEDIA AND MOBILE DEVICE FORENSICS 3 Credit Hours

Course covers data collection and analysis techniques for social media and mobile devices.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36330 LOCAL AREA NETWORK SECURITY FUNDAMENTALS 3 Credit Hours

Examines the primary issues involved in securing resources in a LAN, including threat assessment, countermeasures, best practices, security protocols, cryptography and management-related issues.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36331 ADVANCED ROUTING AND SWITCHING 3 Credit Hours

Reinforcing Internetworking concepts. Topics include network standards, LAN switching, VLANs, network designs, routing protocols and configuration, LAN and WAN segments, and other related topics.

Prerequisite: COMT 21110.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36336 WEB SCRIPTING II 3 Credit Hours

Focuses on server-side scripting needed to create interactive and dynamic web sites.

Prerequisite: COMT 21036 or special approval of COMT faculty.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36340 HELP DESK SUPPORT 3 Credit Hours

Examination of help desks that exist, importance within organizations, the roles and skills required, and methods and technologies commonly employed.

Prerequisite: COMT 11009 or TECH 23010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36350 PROGRAMMING OFFICE PRODUCTIVITY APPLICATIONS 3 Credit Hours

Introduces the use of Visual Basic for Applications (VBA) as a tool to create customized programs that automate repetitive and/or complex tasks performed using office suite applications.

Prerequisite: COMT 11002 and COMT 21010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36355 COMMAND LINE UTILITIES 3 Credit Hours

Preparing students to perform effectively in Windows, Linux, and various server command line environments. Command syntax, batch files, script files, internal & external commands, and other related topics will be covered.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 36392 INTERNSHIP FOR COMPUTER TECHNOLOGY STUDENTS (ELR) 1-3 Credit Hours

(Repeatable for a maximum of 6 credit hours) An arranged work experience for students in the IT field. Students complete 45 hours of internship per credit.

Prerequisite: junior standing.

Schedule Type: Practicum or Internship

Contact Hours: 3-9 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

COMT 40000 CYBERSECURITY 3 Credit Hours

Builds on a background in networking and focuses on cybersecurity best practices, standard models, and regulatory requirements.

Prerequisite: COMT 21002; or DSCI 26010; or CS 33211; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 41002 CLOUD TECHNOLOGY 3 Credit Hours

Concepts of cloud computing, including storage; services; technology; and management.

Prerequisite: COMT 21002; or DSCI 26010; or CS 33211; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 41010 MOBILE APPLICATIONS FOR INFORMATION TECHNOLOGY 3 Credit Hours

Course covers enterprise mobility technical concepts, strategies, and solutions across various domains and industries. Includes topics such as organizational issues, IT and business operations; and best practices and security.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 42000 SOCIAL MEDIA SECURITY 3 Credit Hours

Personal and corporate social media presence, security risks, intellectual property and ethical issues.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 42002 WIRELESS AND MOBILE DEVICE SECURITY 3 Credit Hours

Course covering wireless and mobile device security. Topics include risk assessments, threats, vulnerabilities, and current security practices.

Prerequisites: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 43000 HEALTHCARE INFORMATION SYSTEMS 3 Credit Hours

Course focuses on the roles and responsibilities of the health IT professional including the technology, legal and ethical responsibilities, and complex systems and environment.

Prerequisite: Junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46300 ADVANCED COMPUTER ASSEMBLY AND CONFIGURATION 3 Credit Hours

Focus is on advanced system components, streamlined operating system installation procedures, and current technology in LAN connectivity.

Prerequisite: COMT 11009 and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46303 DIGITAL VIDEO EDITING 3 Credit Hours

Utilizes digital imaging technologies to produce videos. Includes timelines; filming, importing/exporting video; audio; effects, transitions, and captions.

Prerequisite: COMT 36303.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46308 ADVANCED VISUAL BASIC PROGRAMMING 3 Credit Hours

advanced concepts of Visual Basic: Classes and Objects, Inheritance, Polymorphism, Arrays, Exception Handling, Files and Streams, DLLs. .

Prerequisite: COMT 11002 or CS 13001 or DSCI 15310 or MIS 24065.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46309 VISUAL BASIC WEB PROGRAMMING 3 Credit Hours

Using Visual Basic to develop secure, data-aware web applications. Topics covered include HTML and CSS, testing and debugging, master pages, state management, security and authentication, SQL and object data sources, AJAX, and WCF services.

Prerequisite: COMT 11002 or CS 13001 or DSCI 15310 or MIS 24065.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46310 TECHNOLOGY OF OPERATING SYSTEMS 3 Credit Hours

Course covering installation, configuration, tuning, and communication among state of the art desktop operating systems, using available system tools, utilities and files.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46311 TECHNOLOGY OF NETWORKING 3 Credit Hours

Advanced topics of enterprise network management, including DNS, WINS, IP addressing, routing basics, subnet masking, firewalls, storage redundancy techniques, and general tuning, optimizing, troubleshooting, recovery strategies.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46312 SCRIPTING FOR NETWORK ADMINISTRATORS 3 Credit Hours

Covers scripting technologies to configure and manage resources and services of LAN servers and workstations.

Prerequisite: COMT 21002 and COMT 21036.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46313 VIRTUAL MACHINE CONFIGURATION AND ADMINISTRATION 3 Credit Hours

Focus on configuring and administering virtual machine software.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46314 ADVANCED SERVER CONFIGURATION 3 Credit Hours

Focus is on the core service roles provided by application services including configuration, maintenance and security.

Prerequisite: COMT 21002 or CS 33211 or DSCI 26010; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46315 SQL WITH ORACLE 3 Credit Hours

Focus is on SQL and relational databases using Oracle.

Prerequisite: COMT 21005 or CS 13001 or DSCI 15310 or MIS 24065.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46320 CLOUD FORENSICS 3 Credit Hours

Concepts of cloud forensics, including legal consideration and software tools involved with discovery in the cloud.

Prerequisite: COMT 21002; or DSCI 26010; or CS 33211; or TECH 23010 and TECH 26301.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46321 WEB DATABASE INTEGRATION 3 Credit Hours

Focus is on integrating data sources into web sites. Current topics include advanced concepts in server-side processing principles, web forms, database programming objects and Structured Query Language.

Prerequisite: COMT 21036.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46331 LOCAL AREA NETWORK SECURITY AND FIREWALLS 3 Credit Hours

Examines the primary issues involved in defining and configuring a local area network defense perimeter including LAN security analysis, implementing firewalls, and intrusion detection systems.

Prerequisite: COMT 36330.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

COMT 46340 DATA DESIGN AND IMPLEMENTATION 3 Credit Hours

Explores the role and design of databases in organizations, with emphasis on the technologies used in their implementation. Emphasis on SQL.

Prerequisite: COMT 21005 and COMT 21010.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter