

ITIS Information Systems (ITIS)

ITIS 1000 Basic Computer Skills

1 Credit

This course provides an overview of computer concepts and introductory training in the use of computer hardware and software. Students will study computer equipment, computer software, and related terminology. The course includes the fundamentals of using operating system and productivity software, Internet tools and services, and an introduction to an e-Learning environment using Blackboard. The selected software studied in this course includes the Microsoft Office Suite and Google Apps. Either ITIS 1005 Computer Essentials or ITIS 1000 serves as a prerequisite for other IT&CS courses. Students who have taken ITIS 1005 should not take this course. (2.5 contact hours: 0.5 lecture, 2 lab)

ITIS 1005 Computer Essentials

(TAG) 3 Credits

This course provides an overview of computer concepts and introductory training in the use of computer hardware and software. Students will study computer equipment, computer software, and related terminology. The course includes the fundamentals of using operating system and productivity software, Internet tools and services, and an introduction to an e-Learning environment using Blackboard. The selected software studied in this course includes the Microsoft Office Suite and Google Apps. Either ITIS 1005 Computer Essentials or ITIS 1000 serves as a prerequisite for other IT&CS courses. Students who have taken ITIS 1005 should not take this course. (5 contact hours: 1 lecture, 4 lab)

ITIS 1007 Principles of Information Technology and Computer Science

3 Credits

This course is an introduction to the fields of information technology and computer science. It includes foundational concepts of computing including algorithms, computer architecture, databases, human-computer interaction, programming languages and concepts, operating systems, networking, the Internet, and Artificial Intelligence. Students will have the opportunity to explore how computing has made innovations in other fields possible and will examine the ethical implications of computing technologies as well as gain an introduction to the process of computational thinking. This course presents the basics of computer science principles as outlined in the AP Computer Science Principles exam. (4 contact hours: 2.5 lecture, 1.5 lab)

ITIS 1008 Ethics in Information Technology

1 Credit

Prerequisite: ITIS 1000 or ITIS 1005 or ITIS 1007 or permission of instructor.

This course provides an understanding of ethical and societal issues in today's Information Technology (IT) world. It includes an overview of ethics for IT professionals and topics on computer crime, software development, intellectual property, IT impact on quality of life, morality, and codes of ethics and conduct. (1.5 contact hours: 0.5 lecture, 1 lab)

ITIS 1027 Information Technology Support Fundamentals I

3 Credits

Prerequisite: ITIS 1005 (can be taken concurrently) or ITIS 1007 (can be taken concurrently) or permission of instructor.

This course provides an introductory level of understanding and experience in the areas of hardware, software, operating systems, networking, and troubleshooting computer problems. Students will get a basic understanding about the role of the IT Support professional, customer service skills, the incident management process, and tools used for help desk management. Successful completion of this course results in the completion of courses one and two in the Google IT Support Professional Certificate program (this Google certificate consists of five total courses). (4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 1028 Information Technology Support Fundamentals II

2 Credits

Prerequisite: ITIS 1027 or permission of instructor.

This course provides an introductory level of understanding and experience in the areas of operating systems fundamentals and support, system administration, and IT infrastructure services. Successful completion of this course results in the completion of courses three and four in the Google IT Support Professional Certificate program (this Google certificate consists of five total courses). (4 contact hours: 1 lecture, 3 lab)

ITIS 1030 Security Awareness

1 Credit

This course provides a basic introduction to practical security knowledge of computers and related technology equipment. It covers fundamental aspects of IT security and cybersecurity and explains the value of securing data, both for personal use and the workplace. The course introduces ethical policies at government, organizational and individual levels, the importance of data confidentiality and integrity, risk management, common threats and countermeasures, wired and wireless networks, Internet risks, and personal security defenses. Successful completion of this course results in the completion of the fifth course (IT Security) in the Google IT Support Professional Certificate program (this Google certificate consists of five total courses). (2 contact hours: 0.5 lecture, 1.5 lab)

ITIS 1050 Managing Computers: Hardware**3 Credits***Prerequisite: ITIS 1007 or permission of instructor.*

This course provides the fundamental knowledge necessary to install, configure, and troubleshoot computer hardware. The course covers assembly/disassembly of system units, installing and replacing motherboards, system memory, storage devices, power supplies, and input/output device. Setting up and supporting a local network, and mobile devices are introduced, as well as virtualization and cloud computing. This course is cross-listed as CPET 1050. Students who have taken the course under the alternative course ID should not take this course.

(4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 1051 Managing Computers: Software**3 Credits***Prerequisite: ITIS 1050 or CPET 1050.*

This course provides the fundamental knowledge necessary to install, configure, and troubleshoot computer software. The course focuses on the basics of installing, securing, maintaining, and troubleshooting a Windows operating system and the resources it shares. Considerations unique to mobile devices, macOS and Linux are introduced. This course is cross-listed as CPET 1051. Students who have taken the course under the alternative course ID should not take this course.

(4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 1102 Internet: Services, Tools, and Web Page Design**3 Credits***Prerequisite: ITIS 1000 (can be taken concurrently) or ITIS 1005 (can be taken concurrently) or ITIS 1007 (can be taken concurrently) or permission of instructor.*

This introductory course provides an overview of the Internet including services, tools, and Web page creation. Topics also include a brief history of the Internet, browser basics, refined searching techniques, Internet security, electronic commerce, social media, and societal issues. Students will also learn and use basic HTML code to design and create Web pages. Web design techniques for effective Web page creation will be studied along with information presentation and audience considerations when building a Web page.

(4 contact hours: 2.5 lecture, 1.5 lab)

ITIS 1108 Using an HTML Editor**2 Credits***Prerequisite: ITIS 1000 or ITIS 1005 or ITIS 1007 or GRDS 1375 or permission of instructor.*

This course provides continued instruction in the use of HTML. Students will build on skills and knowledge from ITCS 1105 Web Programming I and incorporate the use of an HTML editor program. Students will use the Adobe Dreamweaver Web authoring tool to develop Web pages and use templates and wizards/coaches to simplify Web page development. The course will examine other authoring tools as the industry evolves.

(3 contact hours: 1 lecture, 2 lab)

ITIS 1355 Security+ and Security Essentials**(CTAG, TAG) 3 Credits***Prerequisite: ITIS 1005 or ITIS 1007 or ITIS 1030 or ITCS 1011 or permission of instructor.*

This course introduces the basics of network security including computer network vulnerabilities and threats and how to circumvent them by providing safeguards and countermeasures. Students will explore network security planning, network security technology, network security organization, and the legal and ethical issues associated with network security. This course helps students prepare for CompTIA's Security+ certification.

(5 contact hours: 2 lecture, 3 lab)

ITIS 1360 Cyber/Computer Forensics and Counterterrorism**3 Credits***Prerequisite: ITIS 1355 or Security+ Certification; or permission of instructor.*

This course provides students with the basic knowledge, necessary skills, and techniques used to perform cyber/computer forensics, investigate criminal cyber activities, and conduct cyber investigations against criminal and terrorist activities. Students will gain an introduction to tools and techniques of computer forensics. They will also learn about file structures, data recovery, e-mail and network investigations, web-based investigation methods, cyberterrorism and applicable laws and administrative procedures.

(5 contact hours: 1 lecture, 4 lab)

ITIS 1510 Microsoft Office Word: Skills and Techniques**3 Credits***Prerequisite: ITIS 1000 or ITIS 1005 or ITIS 1007 or permission of instructor.*

This course provides a comprehensive study of word processing software. Students will create and edit documents, enhance text using various formatting options, and use proofing tools. In addition, the course will explore ways to enhance page layout and design using themes, styles, and templates. Advanced topics include creating tables, performing a mail merge, creating and running macros, and creating online documents and forms.

(4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 1520 Microsoft Office Excel: Skills and Techniques**3 Credits***Prerequisite: ITIS 1000 or ITIS 1005 or ITIS 1007 or HIMT 1100 or permission of instructor.*

This course provides a comprehensive study of electronic spreadsheets. Students will design, create, edit, and format spreadsheets, charts, and tables. In addition, the course will explore ways to utilize spreadsheet functions in data analysis. Advanced topics include handling multiple worksheets as well as creating and using templates, macros, defined names, databases, data protection and validation, and pivot tables.

(4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 1530 Microsoft Office Access: Skills and Techniques**3 Credits***Prerequisite: ITIS 1000 or ITIS 1005 or ITIS 1007 or permission of instructor.*

This course provides a comprehensive study of database management in a Microsoft Windows environment. Students will develop database structures, create and maintain tables, run and save queries, sort and filter records, and create and customize forms and reports. Advanced topics include creating and running macros, creating switchboards, and writing Visual Basic code. This course is cross-listed as ITIS 1530 Microsoft Office Access: Skills and Techniques and ITDB 1430 Microsoft Access Relational Database. Students who have taken the course under the alternative course ID should not take this course.

(4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 1550 Using Microsoft Office: Word and Excel**3 Credits***Prerequisite: ITIS 1000 or ITIS 1005 or ITIS 1007 or PARL 2050 or GRDS 1375 or MDAS 1100 permission of instructor.*

This course provides a study of how to use word processing and electronic spreadsheet software. Students will design, create, edit, and format documents, spreadsheets, charts, and tables. In addition, the course will explore ways to enhance page layout and design using styles and templates, as well as utilize spreadsheet formulas and functions in data analysis. Additional topics include performing a mail merge and importing data into a spreadsheet.

(4.5 contact hours: 1.5 lecture, 3 lab)

ITIS 2015 Information Technology Project Management**(TAG) 3 Credits***Prerequisite: ITIS 1005 or ITIS 1007; or permission of instructor.*

This course develops project management skills needed to define, plan, lead, monitor, and complete Information Technology projects. Students will study the role of the project manager and examine and apply tools used for project management.

(5 contact hours: 2 lecture, 3 lab)

ITIS 2355 Security Investigation and Penetration Studies**3 Credits***Prerequisite: ITON 1748, ITIS 1355 or Security+ Certification; or permission of instructor.*

This course introduces the network security specialist to the various methodologies for attacking a network. Students will explore the concepts, principles and techniques, supplemented by hands-on exercises, for attacking and disabling a network. The course presents these methodologies within the context of properly securing the network. It emphasizes network attack methodologies with the use of network attack techniques and tools, and helps students prepare for the Systems Security Certified Practitioner (SSCP) certification.

(5 contact hours: 2 lecture, 3 lab)

ITIS 2890 Information Technology and Computer Science Capstone**2 Credits***Prerequisite: 45 semester credits including 20 credits of ITCS/ITDB/ITIS/ITON courses, a grade of "C" or better in all ITCS/ITDB/ITIS/ITON courses.*

This course serves as a capstone experience for Information Technology and Computer Science degree programs by providing students with an opportunity to practice and refine soft skills required in industry, enhance knowledge of ethical considerations in IT, integrate Generative AI (GenAI) technologies into their careers, and leverage collaboration software for team collaboration. Students will have the opportunity to prepare for employment with skills related to resume writing, job search, and job interviewing. Students will also participate in experiential activities with area employers.

(3 contact hours: 1 lecture, 2 lab)