CIS – COMPUTER SCIENCE

CIS 101 Computer Applications Lab
Prerequisite: CIS 120
This lab is designed to allow instructors to provide additional implementation of computer concepts as needed. This course may be duplicated with an alpha suffix added to the course number.
Code C Lecture: 0 hours Lab: 1 hours Credit Hours: 1

CIS 108 Co-Op
Prerequisite: CIS 120 or CIS 121
These courses constitute a series wherein the student works on a part-time basis in a job directly related to computer science. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student demonstrates skills learned in an employment setting.
Code C Lecture: 0 hours Lab: 2 hours Credit Hours: 2

CIS 113 Spreadsheet Software Applications
Prerequisite: None
This course provides students with hands-on experience using spreadsheet software. Students will develop skills common to most spreadsheet software by developing a wide variety of spreadsheets. Emphasis is on planning, developing, and editing functions associated with spreadsheets.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 115 Presentations Graphics Software Applications
Prerequisite: None
This course provides students with hands-on experience using presentation graphics software. Students will develop skills common to most presentation graphics software by developing a wide variety of presentations. Emphasis is on planning, developing, and editing functions associated with presentations.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 117 Database Management Software Applications
Prerequisite: None
This course provides students with hands-on experience using database management software. Students will develop skills common to most database management software by developing a wide variety of databases. Emphasis is on planning, developing, and editing functions associated with database management.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 120 Google IT Professional Support I – Technical Support Fundamentals
Prerequisite: None
This course is the first of a series intended to prepare students for employment as entry-level IT support specialists. In this course, students will be introduced to the work of information

technology. Students will learn about the different facets of information technology, such as computer hardware, the Internet, computer software, troubleshooting and customer service.
Code C Lecture: 2 hours Lab: 0 hours Credit Hours: 2

CIS 121 Google IT Professional Support II – Computer Networking
Prerequisite: None
This course is the second in a series intended to prepare students for employment as entry-level IT support specialists. This course covers fundamentals of modern networking technologies and protocols, an overview of the cloud, practical applications and networking troubleshooting.
Code C Lecture: 2 hours Lab: 0 hours Credit Hours: 2

CIS 130 Intro to Information Systems
Prerequisite: None
This course is an introduction to computers that reviews computer hardware and software concepts such as equipment, operations, communications, programming and their past, present and future impact on society. Topics include computer hardware, various types of computer software, communication technologies and program development using computers to execute software packages and/or to write simple programs. Upon completion, students should be to describe and use the major components of selected computer software and hardware.
Code B Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 146 Microcomputer Applications
Prerequisite: None
This course is an introduction to the most common microcomputer software applications. These software packages should include typical features of applications, such as word processing, spreadsheets, database management, and presentation software. Upon completion, students will be able to utilize selected features of these packages. This course will help prepare students for the MOS and IC3 certification.
Code B Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 150 Introduction to Computer Logic and Programming
Prerequisite: None
This course includes logic, design and problem solving techniques used by programmers and analysts in addressing and solving common programming and computing problems. The most commonly used techniques of flowcharts, structure charts, and pseudocode will be covered and students will be expected to apply the techniques to designated situations and problems.
Code B Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 155 Introduction to Mobile App Development
Prerequisite: None
The purpose of this course is to introduce students to various app development tools for various mobile platforms. Specific topics include: app distribution sources, mobile device operating systems, survey of app development software, processes for design, build, deploying, and optimizing apps. At the conclusion of this course students will be able to design, build, deploy, and optimize a basic app.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 157 Introduction to App Development with Swift
Prerequisite: None
This introductory one-semester course is designed to help students build a solid foundation in programming fundamentals using Swift as the language. Students get practical experience with the tools, techniques, and concepts needed to build a basic iOS system.
Code C Lecture: 1 hour Lab: 2 hours Credit Hours: 3

CIS 165 Network Lab
Corequisite: CIS 121
This lab is designed to allow instructors to provide additional implementation of networking concepts as needed. This course may be duplicated with an alpha suffix added to the course number.
Code C Lecture: 0 hours Lab: 1 hours Credit Hours: 1

CIS 191 Intro to Computer Programming Concepts
Prerequisite: None
This course introduces fundamental concepts, including an algorithmic approach to problem solving via the design and implementation of programs in selected languages. Structured programming techniques involving input/output, conditional statements, loops, files, arrays and structures and simple data structures are introduced. Students are expected to write programs as part of this course.
Code B Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 199 Network Communications
Prerequisite: None
This course is designed to introduce students to the basic concepts of computer networks. Emphasis is placed on gaining an understanding of the terminology and technology involved in implementing networked systems. The course will cover the OSI and TCP/IP network models, communications protocols, transmission media, networking hardware and software, LANs (Local Area Networks) and WANs (Wide Area Networks), Client/Server technology, the Internet, Intranets and network troubleshooting. Upon completion of the course, students will be able to design and implement a computer network. Students will create network shares, user accounts, and install print devices while ensuring basic network security. They will receive hands-on experience building a mock network in the classroom. This course will help prepare students for the CCNA and Network + certifications.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 207 Introduction to Web Development
Prerequisite: None
At the conclusion of this course, students will be able to use specified markup languages to develop basic Web pages.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 209 Advanced Web Development
Prerequisite: CIS 207
This is an advanced Web design course emphasizing the use of scripting languages to develop interactive Web sites. Upon completion students will be able to create data driven Web sites. This course helps prepare students for the Certified Internet Webmaster (CIW) Foundations certification.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 246 Ethical Hacking
Prerequisite: None
This course emphasizes scanning, testing, and securing computer systems. The lab-intensive environment provides opportunities to understand how perimeter defenses work and how hackers are able to compromise information systems. With awareness of hacking strategies, students learn to counteract those attempts in an ethical manner.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 251 C++ Programming
Prerequisite: None
This course is an introduction to the C++ programming language including object oriented programming. Topics include: problem solving and design; control structures; objects and events; user interface construction; and document and program testing.
Code B Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 255 JAVA Programming: 3 credits
Prerequisite: None
This course is an introduction to the Java programming language. Topics in this course include object-oriented programming constructs, Web page applet development, class definitions, threads, events and exceptions. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.
Code B Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 268 Software Support
Prerequisite: None
This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. The class will help to prepare participants for the A+ Certification sponsored by CompTIA.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 269 Hardware Support
Prerequisite: None
This course provides students with hands-on practical experience in installation and troubleshooting computer hardware. The class will help to prepare participants for the A+ Certification sponsored by CompTIA.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 280 Network Security
Prerequisite: None
This course provides a study of threats to network security and methods of securing a computer network from such threats. Topics included in this course are security risks, intrusion detection, and methods of securing authentication, network access, remote access, Web access, and wired and wireless network communications. Upon completion students will be able to identify security risks and describe appropriate counter measures.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 281 System Analysis and Design
Prerequisite: CIS 191 or higher
This course is a study of contemporary theory and systems analysis and design. Emphasis is placed on investigating, analyzing, designing, implementing, and documenting computer systems. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 282 Computer Forensics
Prerequisite: None
This course introduces students to methods of computer forensics and investigations. This course helps prepare students for industry specific certification.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3

CIS 289 Wireless Networking
Prerequisite: None
The purpose of this course is to allow students to explore current issues related to wireless technology. Students will be able to develop and maintain wireless networks using advancements in current technology.
Code C Lecture: 3 hours Lab: 0 hours Credit Hours: 3