Information Technology

IT 110 Basic PC Assembly and Repair (2 credit, 2 lecture, 0 lab)

This course provides the student an introduction to computer assembly and repair, operating system installation and troubleshooting.

IT 111 Intro to Information Technology (2 credit, 2 lecture, 0 lab)

This course provides the student with the basic skills needed to pursue learning in Information Technology (IT). This course introduces students to the history of computers, the Internet and the World Wide Web and provides basic information and terminology about the Internet, computer hardware and computer software. May be taken as variable credit. May be taken three times.

IT 113 Social Networking & Web 2.0 (2 credit, 2 lecture, 0 lab)

This course provides the student with skills to navigate Web 2.0. Web 2.0 includes social networking, blogging, podcasts and cloud computing.

IT 114 Introductory Operating Systems (2 credit, 2 lecture, 0 lab)

This course provides the student an introduction to operating systems.

IT 115 Introductory Word Processing (2 credit, 2 lecture, 0 lab) This course

provides the student an introduction to word processing.

IT 116 Introductory Spreadsheets (2 credit, 2 lecture, 0 lab)

This course provides the student an introduction to spreadsheet software.

IT 117 Introductory Databases (2 credit, 2 lecture, 0 lab)

This course provides the student an introduction to database software.

IT 118 Introductory Presentation Software (2 credit, 2 lecture, 0 lab) This course

provides the student an introduction to presentation software.

IT 119 Basic Software Applications (3 credit, 3 lecture, 0 lab)
IAI BUS 902

This course is an introductory computer course intended to acquaint and train students in the use of business software including word processing, database management, spreadsheets, presentation software, and Internet access methods. **Pre-Requisite:** This course requires the student to have access to a computer running Microsoft Windows along with the Microsoft Office software suite which includes Microsoft Word, Microsoft Excel, Microsoft PowerPoint and Microsoft Access. Computers with the correct software are available for student use on the SIC campus. Typing skills or Instructor consent. May be taken three times. (IAI BUS 902)

Information Technology

IT 131 Introductory Web Design (2 credit, 2 lecture, 0 lab) This course
provides the student an introduction to web design.

IT 132 Introductory Programming (2 credit, 2 lecture, 0 lab)
This course provides the student an introduction to computer programming.

IT 133 Systems Analysis (3 credit, 3 lecture, 0 lab)
This course is an introduction to the methodology, tools and techniques of systems analysis. This course examines the interrelationships between a computer system and the environment, or organization, in which the system operates. Students will gain an appreciation of how information flows through an organization, how information is organized and managed, and the techniques by which the value of information is optimized.

IT 134 Physical and Mental Sides of Esports (1 credit, 1 lecture, 0 lab)
This course is designed to promote the physical and mental well-being of individuals who are members on a competitive esports team. The course will emphasize personal well-being and mental health as well as being a productive member of a team. Topics include: Setting and attaining goals and objectives, mental and physical preparation for competition, importance of strategy, motivation, the inner self, sportsmanship, teamwork, leadership, senses and emotions, winning and losing with professionalism, toxic environments and stereotypes, physical and mental self-care, gaming addiction. May be taken three times.

IT 135 Advanced Software Applications (3 credit, 3 lecture, 0 lab)
This course is an intermediate computer course intended to advance the students skills in the use of business software including word processing, database management, spreadsheets, presentation software, and personal information management systems. **Pre-Requisite:** IT 119.

IT 136 Esports Fundamentals (1 credit, 1 lecture, 0 lab)
This course is designed to introduce students to various aspects of esports and competitive video gaming. Topics include regulatory organizations, streaming technologies, social media platforms, publishing companies, and professional esports teams. May be taken three times.

Information Technology

IT 137 Esports Practicum (1 credit, 0 lecture, 2 lab)

This course is designed for students who want to practice and prepare for competitive esports tournaments. Coaches will work with students individually and in groups to prepare and implement strategies for competing in a esports tournaments of a variety of games. This course may be offered for variable credit and repeatable three times.

IT 151 Windows Operating Systems (3 credit, 3 lecture, 0 lab)

This course provides the student with information about the Microsoft Windows operating system. The student will learn to install, troubleshoot, secure and maintain the Microsoft Windows operating system. This course is designed to prepare the student to become certified as a Microsoft Certified Solutions Associate.

IT 153 IT Essentials I (4 credit, 4 lecture, 0 lab)

This course provides the student with information and training on computer hardware and maintenance. This course will allow the student to recognize and compare various computer hardware and peripheral devices. This course provides hands on activities and labs for students to learn how to assemble, disassemble and configure a computer, install peripheral devices, and troubleshoot hardware and software problems. This course is designed to help the student prepare for the CompTIA A+ certification.

IT 154 History and Evolution of Video Games (2 credit, 2 lecture, 0 lab)

This course will look at the history and development of videos games from the first video games to the current generation of console, PC, mobile, and VR games. Topics of discussion will also include the technology behind video games, genres of video games, the economic impact of video games, and training simulators.

IT 155 Fundamentals of UNIX (4 credit, 4 lecture, 0 lab)

This course provides the student with skills related to the UNIX/Linux operating system. This course is designed to help the student prepare for the CompTIA Linux+ certification.

IT 157 IT Support Professional (5 credit, 5 lecture, 0 lab)

This course provides the student with skills related to the UNIX/Linux operating system. This course is designed to help the student prepare for the CompTIA Linux+ certification.

IT 170 Computer Network Gaming (2 credit, 2 lecture, 0 lab)

Introduction to the fundamentals of network computer gaming including hardware and software considerations. Some of the concepts covered will include: fundamental TCP/IP addressing, choosing and optimizing appropriate hardware, choosing and optimizing appropriate software, and using the Internet as a resource. This course may be offered as variable credit and repeated three times.

IT 171 Introduction to Game Design (3 credit, 3 lecture, 0 lab)

This course is used to introduce students to the game design process and how to design 2D games.

Information Technology

IT 173 Programming I (3 credit, 3 lecture, 0 lab)
IAI CS 911

The first in a sequence of courses for majors in Computer Science, Mathematics, and Engineering. Introduces a disciplined approach to problem-solving and algorithm development, in addition to an introduction to procedural and data abstraction. Covers: selection, repetition, and sequence control structures; program design, testing, and documentation using good programming style; block-structured high-level programming languages; and arrays, records, and files.

IT 191 Fundamentals of Web Design (3 credit, 3 lecture, 0 lab)

This course focuses on the overall production processes surrounding web site design with particular emphasis on design elements involving layout, navigation and interactivity.

IT 195 Computer Security I (4 credit, 4 lecture, 0 lab)

This course provides the student with information and training on computer security, including risk mitigation, infrastructure security, application security, operational security, and information security along with identifying applicable policies, laws and regulations. This course is designed to help the student prepare for the CompTIA Security+ certification.

IT 196 Computer Security II (4 credit, 4 lecture, 0 lab)

This course provides the student with information and training on ethical hacking. Ethical hacking involves learning the tools used by hackers to be prepared to defend against these attacks. This course is designed to help the student prepare for the EC-Council Certified Ethical Hacker certification. **PreRequisite:** IT 195 Computer Security I or instructor consent.

IT 210 Introductory Networking (2 credit, 2 lecture, 0 lab) This course
provides the student an introduction to networking.

IT 215 Network Fundamentals (4 credit, 4 lecture, 0 lab)

This course provides the student with the knowledge and skills to implement network architecture with basic network security. The student will also learn to configure, maintain, and troubleshoot network devices using the appropriate tools. This course is designed to help the student prepare for the CompTIA Network+ certification. This course is part of a series to help prepare the student for the Cisco Certified Network Associate certification.

IT 216 Router Theory and Technology (4 credit, 4 lecture, 0 lab)

This course provides the student with information and training on network routing and routing protocols. This course will teach the student to manage network backbone equipment. This course is part of a series to help prepare the student for the Cisco Certified Network Associate certification. PreRequisite: IT 215.

Information Technology

IT 217 LAN Administration (4 credit, 4 lecture, 0 lab)

This course provides the student with the competencies manage a local area network in a business environment. **Pre-Requisite:** IT 215, concurrent enrollment in IT 215, or instructor consent.

IT 218 Wide Area Networks (4 credit, 4 lecture, 0 lab)

This course provides the student with information and training on wide area networks. This course will teach the student to manage network equipment between remote locations. This course is part of a series to help prepare the student for the Cisco Certified Network Associate certification. **Pre-Requisite:** IT 215 or instructor consent.

IT 219 LAN Switching and Wireless (4 credit, 4 lecture, 0 lab)

This course provides the student with information and training on local area networks and wireless technologies. This course will teach the student to manage network equipment for local area networks and wireless technologies. This course is part of a series to help prepare the student for the Cisco Certified Network Associate certification.   **Pre-Requisite:** IT 215 or instructor consent.

IT 230 Internship (4 credit, 0 lecture, 20 lab)

Provides field experience in which the student is working in a position with at least one of the following responsibilities: network maintenance, computer maintenance, software management, web site management or development, or other approved area related to Information Technology. This course may be repeated three times and may be offered as variable credit. **Pre-Requisite:** Instructor approval.

IT 271 Database Management Systems (3 credit, 3 lecture, 0 lab)

A study of database management systems. Includes representatives of the hierarchical, network, and relational models. Covers the major aspects of database technology, from initial planning, through schema development, to formal operation. A mixture of background theory and practical operation. Emphasizes the restrictions imposed by particular database models, and consequent processing advantages or disadvantages. **Pre-Requisite:** IT 119.

IT 273 Programming II (3 credit, 3 lecture, 0 lab)
IAI CS 912

An advanced treatment of the C++ programming language, including the object-oriented extensions of C++ with a primary focus on data structures. Through the language C++, the course explores linked lists, stacks, queues, trees, and graphs. This course provides a framework for developing a professional programming style. This course provides an advanced treatment of algorithm development and analysis and the development of skill in creating programs through both the top down and object-oriented paradigms. **Pre-Requisite:** IT 173 Programming I.

IT 290 Selected Topics in Information Tech (4 credit, 4 lecture, 0 lab)

An in-depth study of topics in the Information Technology field. The exact content will vary from semester to semester depending on the subject studied. This course may be repeated three times if different topics are considered, but cannot exceed a total of six (6) credit hours toward graduation. May be offered as variable credit. Pre-Requisite: Instructor Consent.