



The following programs of study are available within the Information Technology cluster.

- Information Support and Services
- Interactive Media
- Programming and Software Development
- Network Systems

Interactive Media

9146CT

Formerly Business Image Management and Multimedia

Digital and Interactive Media

- ⇒ *Grade Placement 10-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite Business Information Management I (BIM I) or Desktop Publishing and Approval Process or Pass Proficiency Test and Approval Process*
- ⇒ *Past Prereq. Business Computer Information Systems I (BCIS I) or Desktop Publishing*

In this course students will develop proficiencies in designing, importing, and manipulating advanced text, graphics and audio used in presentation management, multimedia productions, publishing systems, web design, and emerging technologies. Students will be responsible for purchasing materials or assessed a fee associated with this course. **Advanced Technical Credit and Tech Prep college credit are available through community colleges in Texas.**

9147CT

New Course

Web Technologies

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite Business Information Management I (BIM I) or Desktop Publishing and Approval Process or Pass Proficiency Test and Approval Process*
- ⇒ *Past Prereq. Business Computer Information Systems I (BCIS I) or Desktop Publishing*

Through the study of web technologies and design, students create web sites based on the needs of a client. The student researches legal and copyright issues, hardware and software, connectivity issues and security protocols to make professional web pages. Students are expected to plan, create and maintain web sites with appropriate graphics, content, video and programming elements. Students will be responsible for purchasing materials or assessed a fee associated with this course. **Advanced Technical Credit and Tech Prep college credit are available through community colleges in Texas.**

Programming and Software Development

9148CT

Formerly Business Computer Programming

Computer Programming

- ⇒ *Grade Placement 10-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite None*

This course introduces beginning programming. Student will apply an algorithmic approach (program execution, testing, debugging, and data storage) to problem solving and program design using an appropriate programming language. Emphasis is placed on programming problem identification and solving. Students will be responsible for purchasing materials or assessed a fee associated with this course.

Network Systems

9644CT

Formerly Introduction to Computer Maintenance

Computer Maintenance

- ⇒ *Grade Placement 10-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite None*

Students learn the principles of computer maintenance, including computer hardware and broad level components related to the installation, diagnosis, service, and repair of computer systems and electrical/electronic theory. To prepare for success, students will have the opportunities to build personal computers and troubleshoot common maintenance problems. Students may have the opportunity to take the CompTIA A+ certification test.

9647CT

Internetworking Technologies I

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 1 Unit (2 class periods per semester) (Fall)*
- ⇒ *Prerequisite Approval Process*

This course is designed to develop the skills needed to design, build and maintain small to medium-sized networks. In a lab setting that corresponds to the real world, students utilize the building blocks of today's global information technologies to design small to medium-sized local area networks. The course focuses on network fundamentals and protocols, network theory, structured cabling, and the configuration of routers, wireless equipment, and PCs. This high-tech learning environment provides students the knowledge and experience to enter the workforce and/or further their education and training in the computer networking field. This course is the first part of the Cisco Networking Academy Program that can lead to industry recognized certifications: the Cisco Certified Entry Network Technician (CCENT) and the Cisco Certified Network Associate (CCNA). **Dual Credit is available through Lone Star College System. Students will receive advanced grade points for this course.**

9651CT

Internetworking Technologies II

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 1 Unit (2 class periods per semester)(Spring)*
- ⇒ *Prerequisite Successful completion of Internetworking Technologies I and Approval Process*

This course is the second part of the Cisco Networking Academy Program. It focuses on switching, basic network security, LAN design, WAN design, and exploration of advanced routing protocols. This high-tech learning environment provides students the knowledge and experience to enter the workforce and/or further their education and training in the computer networking field. Successful completion of Internetworking Technologies I and II will prepare the student to take the Cisco Certified Networking Associate examination. Upon passing the CCNA exam, the student will have a network certification that is recognized by the information technology industry and businesses around the world. **Dual Credit is available through Lone Star College System. Students will receive advanced grade points for this course.**

9149CT

New Course

Research in Information Technology Solutions

- ⇒ *Grade Placement 12*
- ⇒ *Credit 2 Units*
- ⇒ *Recommended Prerequisite Completion of at least Two Courses in Information Technology cluster and Approval Process*

A student will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation and assessment of products, services and systems. Analytical skills and application of information technology concepts and standards are essential to prepare students for success in a technology-driven society.

9180CT

Formerly Business Education Independent Study

Problems and Solutions in Business, Finance and Information Technology

- ⇒ *Grade Placement 12*
- ⇒ *Credit 1/2 - 1 Unit*
- ⇒ *Recommended Prerequisite Completion of at least Two Courses in the Chosen Career Concentration Coherent Sequence and Approval Process*

A project-based learning experience developed by a student or group of students, teacher, and an interdisciplinary mentor team. The project provides opportunities for an in-depth study of at least one aspect of the business area. The student or group demonstrates the ability to utilize a variety of resources, advanced technology, and communication skills in the development and presentation of the project. **This project-based course may allow a student to meet one of the Distinguished Achievement Program advanced measures. Incoming 9th graders of 2008-09 will receive advanced grade points for this course.**

Problems and Solutions in Trade & Industrial Education

- ⇒ *Grade Placement 12*
- ⇒ *Credit 1/2-1 Unit*
- ⇒ *Prerequisite Completion of at least Two Courses in the Chosen Career Concentration Coherent Sequence and Approval Process*

A project-based learning experience developed by a student or group of students, teacher and an interdisciplinary mentor team. The project provides opportunities for an in-depth study of at least one aspect of an industry in the trade and industrial program area. The student or group demonstrates the ability to utilize a variety of resources, advanced technology, and communication skills in the development and presentation of a project. **This project-based course may allow a student to meet one of the Distinguished Achievement Program advanced measures. Incoming 9th graders of 2009-2010 will receive advanced grade points for this class.**

**I (2hr – 9178CT) (3hr – 9176CT)
II (2hr – 9179CT) (3hr – 9177CT)**

*Formerly BCIS II (Work-Based Career Preparation) and
Business Education Career Preparation II*

Business Education Career Preparation I, II

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 2-3 Units*
- ⇒ *Prerequisite Business Information Management I (BIM I) or Desktop Publishing, (16 years of age) and Approval Process*
- ⇒ *Past Prereq Business Computer Information Systems I (BCIS I) or Desktop Publishing, (16 years of age) and Approval Process*

This course provides an opportunity for students to obtain high school training through work-based paid experiences. The student attends one class period of instruction and reports to an approved training site for a minimum of 10-15 hours per week. Advanced concepts and technical skills in business management and enable the student to function successfully in the workplace. Emphasis includes technical skills, effective oral and written communication, planning and organizing work, establishing priorities, records and information management, and operation of equipment. Students provide their own transportation to their training stations. Students will be responsible for purchasing materials or assessed a fee associated with this course.

I (2hr-9677CT) (3 hr-9676CT) II (2hr-9679CT) (3hr-9678CT)

Career Preparation I, II

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit I 2-3 Units, II 2-3 Units*
- ⇒ *Prerequisite 16 years of age and Approval Process*

A work-based learning program that combines occupationally related classroom instruction and work-based experiences. Students work in a skilled occupation relating to communications and media, construction and maintenance, electrical and electronics, industrial and manufacturing, safety and security, metal technology, automotive/transportation or other specialty areas. Safety, entrepreneurship, leadership and career opportunities are included with work ethics and job related study in the classroom. Students must provide their own transportation to their training station. This course is offered at Klein High School.