

# INFORMATION SYSTEMS ACADEMY

## Curriculum Information

### INFORMATION SYSTEMS ACADEMY PROGRAM GOAL

The goal of Central Academy's Information Systems Academy is to develop skills in specific areas of computer technology. Through in-depth study students will have the opportunity to leave high school with several IT certifications such as:

- ◆ A+ Hardware/Software
- ◆ Cisco Certified Entry Networking Technician (CCENT).
- ◆ Cisco Certified Network Associate (CCNA)
- ◆ Microsoft Certified Professional (MCP)
- ◆ Microsoft Certified Systems Administer (MCSA)
- ◆ Microsoft Certified Systems Engineer (MCSE)
- ◆ Network +
- ◆ SAS Certified Base Programmer
- ◆ Security +

### Primary Course Both Pathways

#### Grades 9 Foundations of Information Technology

This introductory course provides students with the basic knowledge to pursue further study in information technology.



Instruction focuses on network systems, information support and services, programming, software development and interactive media.

### Computer Hardware Pathway

#### Grades 10-12

Students will continue developing their networking and Internet skills using tools and hardware common to home and small business environments.



From personal computers to network systems, students will learn connective to the Internet through ISP, network addressing, network service and wireless technologies.

Study will include an overview of routing and remote access, security and email services, Help Desk operations and planning network upgrades.

Training is conducted using the Cisco Networking Academy connection using Cisco CCNA Discovery curriculum. Students will become proficient in home and small business networking in addition to Routing and Switching.

### College Advantage

Whether a student plans to attend a four-year university or two year associate program CATA offers all the required subjects necessary for post-secondary education. Many required courses in the Information Systems Academy Pathways carry honors credit. Advanced Placement (AP) opportunities also exist within the core curriculum. Successful completion of Honors and/or AP courses can boost a student's GPA.

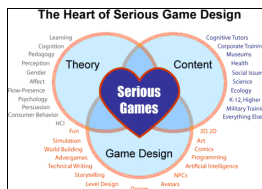
### Software Development & Game Design Pathway

#### Grades 10-12

Students will be introduced to the concepts of programming, application development and writing software solutions.

Utilizing SAS programming students will learn how to plan and write SAS programs to solve common data analysis problems by running and debugging programs. The emphasis is placed on reading input data, creating list and summary reports, defining new variables, executing code conditionally, reading raw data fields and SAS data sets and writing the results to SAS data sets.

Students will progress to using complex 2D graphics, animation, editing and image



analysis to better understand, illustrate, explain and present technical, mathematical and/or scientific concepts. Students will apply skills through the development of XNA Game Studio computer games.

At the conclusion of the pathway students will work in collaborative teams to develop a final 3D game project.

### Work-based Learning Opportunities

Partnerships with the business community have been developed to allow qualified students in the Information Systems Academy to participate in job shadowing, internship or cooperative learning experiences.

## CENTRAL ACADEMY OF TECHNOLOGY & ARTS



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See reverse side for  
Suggested/Required  
Courses

