

**Summary of the Changes to the A.A.S. degree in Computer Information Systems  
EFFECTIVE FALL QUARTER 2007**

- Students following a Computer Information Systems degree (prior to Fall Qtr 2001) **MUST CONTACT** the CIS Department Chairperson for approval if the CIS degree program has been prolonged beyond six years.
- The changes were designed to encompass a core group of classes that all new CIS majors will complete (including general education classes, business courses and basic computer classes) as well as allow the student to select **ONE** Area of Concentration within the computer field to focus their knowledge. *The six Areas of Concentration available are: **Software Development, User Support, Web Development, Network Engineer, Network Manager and Microsoft Security Specialist.***
- Below are the core classes that all CIS majors will complete along with details on the six areas of concentration.
- ***DO NOT USE THIS SHEET TO SCHEDULE YOUR CLASSES!! ONCE YOU HAVE SELECTED AN AREA OF CONCENTRATION, NOTIFY A BUSINESS ADVISOR ([ONLINE CHANGE MAJOR/CREDIT EVALUATION REQUEST FORM](#) OR IN PERSON). YOU WILL THEN REFER TO YOUR DEGREE AUDIT FOR SCHEDULING QUARTERLY CLASSES. THIS SHEET IS FOR GENERAL INFORMATION ONLY.***

**CIS Core Classes** (required for all new CIS majors, regardless of concentration)

**General Education  
Core:**

ENG 111 and 112  
ENG 131 and 132  
MAT 116 or 121  
MAT 122  
Humanities Elective  
COM 206  
COM 225

**Business Core:**

ACC 121 or 111\*\*  
LAW 101  
ECO 218 (ECO 216)\*  
MAN 205  
MRK 201\*  
BU 101 or SCC 101

**Computer Core:**

BIS 160  
CIS 107\*\*  
CIS 100 (IT career exploration)  
CIS 111  
CIS 225##  
CIS 265  
CIS 230 or 241 \*\*\*  
CIS 210  
CIS 270 or Business Elective#  
CIS 278

\*Effective Fall Quarter 2008 ECO 218 will be the prerequisite for MRK 201

\*\*Effective Fall Quarter 2006 ACC 111 (and CIS 108) were deactivated

\*\*\*Network Engineers take CIS 241 instead of CIS 230

#Microsoft Security Specialist majors must do CIS 257 or CIS 259

##Required class for User Support majors only

**Visit the Business and Public Services Division website: [www.sinclair.edu/academics/bps](http://www.sinclair.edu/academics/bps)**

## CIS Areas of Concentration

- Each student **MUST** complete the core CIS requirements listed previously, as well as all requirements for **ONE** of the following six Areas of Concentration in order to complete a version of the Computer Information Systems degree. **ONCE YOU HAVE SELECTED AN AREA OF CONCENTRATION, DECLARE YOUR PROGRAM/MAJOR FOR THAT AREA BY USING EITHER THE ONLINE CHANGE MAJOR FORM AT: [www.sinclair.edu/academics/bps](http://www.sinclair.edu/academics/bps), OR CONTACT A BUSINESS ADVISOR at [businesscounselors@sinclair.edu](mailto:businesscounselors@sinclair.edu)**

### User Support:

- Help Desk Technician
- Basic Programming
- Prepare for A+ Certification
- Prepare for Network+ Certification
- Customer Service Representative
- Problem Solving & Troubleshooting
- Software Applications Specialist
- Hardware Installation and Support

### Web Development:

- Create web pages
- Design web sites
- Manage web sites
- Develop web applications

### Software Development:

- Object-oriented design
- Systems Analysis
- Programming languages
- Software development
- Software maintenance
- Database development
- Design, develop, document, implement & test computer software

### Network Engineer:

- Prepare for CISCO Certified Network Associate (CCNA)
- Network systems analysis
- Design, install and maintain network systems
- Concepts of networking in an Internet/Intranet environment
- Network hardware/software installation and maintenance
- Fundamental concepts of router configuration and management
- Concepts of router hardware and software components
- Router configurations, LAN switching theory, VLANS, advanced LAN and LAN switched design, Novell IPX and threaded case studies
- WAN theory and design, WAN technology, PPP, frame relay, ISDN
- Network troubleshooting

### Network Manager **or new** Security Specialist:

- Prepare for Microsoft Certified Systems Engineer (MCSE)
- Computer/network security in a Microsoft Windows environment
- Install, configure/troubleshoot MS Windows Directory Services
- Setup & administer a client/server network
- Install, manage, monitor, configure and troubleshoot DNS, DHCP, remote access, network protocols, learn encryption, wired/wireless security techniques
- Design concepts to achieve a more secure network setting

### **INTERESTED IN TRANSFER?**

**[www.sinclair.edu/academics/bps](http://www.sinclair.edu/academics/bps)**

### **For assistance in selecting which Area of Concentration is right for you:**

Please make use of the valuable resources available at Sinclair Community College:

### **Career Services (Room 10-313) 512-2772**

Some of the services they offer include: Computerized career inventories that assess interests, abilities, values and experience; career counseling; career library information (job descriptions, salary information, job market data); a computerized information system that contains Ohio job market data, and many others.