

Computer and Information Systems Bachelor of Arts Degree

I.	Course Requirements for Major		
A.	Program Requirements		15 semester hours
1.	CIS 119	Visual Basic Programming	3
2.	CIS 218	Introduction to Information Systems	3
3.	CIS 252	Introduction to C++ Programming	3
4.	CIS 353	Systems Analysis	3
5.	CIS 363	Database Management Systems	3
	Concentrations (Choose one)		18 semester hours
6.	Information Systems		
a.	CIS 340	Java Programming	3
b.	CIS ____	Approved Electives (300/400 level)	3
c.	CIS 443	Data Communications	3
d.	CIS 465	Management Information Systems	3
e.	CIS 480	Internship	3
f.	CIS 495	Senior Project	3
7.	Networking		
a.	CIS 370	Network Operating Systems	3
b.	CIS ____	Approved Electives (300/400 level)	3
c.	CIS 443	Data Communications	3
d.	CIS 470	Data and Network Assurance	3
e.	CIS 480	Internship	3
f.	CIS 495	Senior Project	3
8.	Web Development		
a.	CIS 340	Java Programming	3
b.	CIS ____	Approved Electives (300/400 level)	3
c.	CIS 460	Web Development	3
d.	CIS 480	Internship	3
e.	CIS 485	Special Topics	3
f.	CIS 495	Senior Project	3
B.	Cognate Requirements		12 semester hours
1.	BAM 311	Business Ethics	3
	or		3
	PHI 220	Introduction to Ethics	
2.	#MAT 174	Introduction to Data Analysis & Statistics	3
3.	MAT 260	Discrete Mathematics	3
4.	TSC 101	Fundamentals of Speech Communication	3
C.	Total for Major		45 semester hours
II.	Liberal Arts		32 semester hours
	# May be double counted toward Major and Liberal Arts Requirement		
III.	General Electives		43 semester hours
IV.	Total for Degree		120 semester hours

V. Other Requirements

1. CIS majors are strongly encouraged to have a minor from another discipline. Any of the cognate requirements (section B) may count toward a minor.
2. CIS majors must earn a 2.1 Grade Point Average in their major (sections A & B).
3. CIS majors must register for the Senior Project Seminar in the first semester of the senior year.
4. Students with previous computer background may apply to test out of CIS 218.
5. Students majoring in CIS who are transferring from other institutions may not count grades of "D" earned in CIS courses towards a CIS degree. Such students would need to either retake the course in which the "D" was earned, or substitute it with additional elective hours. Such a determination will be made on an individual basis by the CIS program coordinator.
6. Students must complete at least 18 CIS credits of CIS (section A) at Siena Heights University including CIS 495 for a CIS major.
7. Students must complete 18 hours of 300/400 level CIS courses at Siena Heights University.
8. Classes completed more than seven (7) years earlier cannot be transferred/ applied toward a CIS degree.

Computer and Information Systems**General Minor**

I. Requirements for Minor

A. Program Requirements

			24 semester hours
1.	CIS 119	Visual Basic Programming	3
2.	CIS 218	Introduction to Information Systems	3
3.	CIS 252	Introduction to C++	3
4.	CIS 340	Java Programming	3
5.	CIS 353	Systems Analysis	3
6.	CIS 363	Database Management Systems	3
7.	CIS ____	Approved Electives (300/400 level)	3
8.	CIS 465	Management Information Systems	3

B. Total for Minor

24 semester hours**Computer Science Minor****Elementary Certification**

I. Requirements for Elementary Certification

A. Program Requirements

			24 semester hours
1.	CIS 119	Visual Basic Programming	3
2.	CIS 218	Introduction to Information Systems	3
3.	CIS 251	Teaching Computer Science-Elementary	3
4.	CIS 252	Introduction to C++	3
5.	CIS 340	Java Programming	3
6.	CIS 370	Network Operating Systems	3
7.	CIS 455	Computer Hardware & Software	3
8.	CIS 460	Web Development	3

B. Total for Minor

24 semester hours**Computer Science Minor****Secondary Certification**

I. Requirements for Secondary Certification

A. Program Requirements

			24 semester hours
1.	CIS 119	Visual Basic Programming	3
2.	CIS 218	Introduction to Information Systems	3
3.	CIS 252	Introduction to C++	3
4.	CIS 340	Java Programming	3
5.	CIS 370	Network Operating Systems	3
6.	CIS 372	Teaching Computer Science-Secondary	3
7.	CIS 455	Computer Hardware & Software	3

8.	CIS 460	Web Development	3
B. Total for Minor			24 semester hours

II. Other Requirements

- Students need to complete all the requirements for elementary or secondary teacher certification to receive this minor.
- Students need to earn a 2.1 Grade Point Average in their minor.
- For elementary and secondary certifications, all courses must be taken at Siena Heights University except CIS 199.
- Students need a "C" or better for accepted transfer course(s).
- At the present time this minor is available only on the Adrian Campus.
- Classes completed more than seven (7) years earlier cannot be used for this minor.
- CIS general minors must complete 12 hours of 300/400 level CIS classes at Siena Heights University.

Computer and Information Systems Associate of Arts Degree

I. Course Requirements

A.	Program Requirements		24 semester hours
1.	CIS 119	Visual Basic Programming	3
2.	CIS 218	Introduction to Information Systems	3
3.	CIS 252	Introduction to C++	3
4.	CIS 340	Java Programming	3
5.	CIS 353	Systems Analysis	3
6.	CIS 363	Database Management Systems	3
7.	CIS ____	Approved Electives (300/400 level)	6
B.	Cognate Requirements		6 semester hours
1.	#MAT 174	Data Analysis and Statistics	3
2.	TSC 101	Fundamentals of Speech Communication	3
C.	Total for Major		30 semester hours

II. Liberal Arts **13 semester hours**
May be double counted toward Major and Liberal Arts Requirements.

III. General Electives **17 semester hours**

IV. Total for Degree **60 semester hours**

V. Other Requirements

- Students must complete twelve (12) hours of 300/400 level CIS classes at Siena Heights University.

General Certificate in CIS

I. Requirements

A.	Program Requirements		18 semester hours
1.	CIS 119	Visual Basic Programming	3
2.	CIS 218	Introduction to Information Systems	3
3.	CIS 252	Introduction to C++	3
4.	CIS 340	Java Programming	3
5.	CIS 353	Systems Analysis	3
6.	CIS 1__	Any three once credit courses above CIS 100	3
B.	Total for Certificate		18 semester hours