

**COMPUTER INFORMATION SYSTEMS
C++/JAVA ADVANCED PROGRAMMING (CJC)
(HEGIS 5101)
(Applied Academic Certificate)**

This certificate will provide the student with advanced programming techniques in HTML, C, C++, JAVA and Visual Basic. The student will design and code programs using advanced data structures with an emphasis on the development of web-based programs. Students continuing into a two-year degree program are advised to consult the requirements for either the CIS or BUS Applied Science degree programs. Students must have a programming background prior to enrolling in this certificate. Students must be proficient in C programming prior to enrolling in this certificate.

A Certificate is awarded upon completion of the requirements for this program.

Courses should be selected in consultation with an advisor.

<u>Course No.</u>	<u>Descriptive Title</u>	<u>Cr.Hrs.</u>
<u>FIRST SEMESTER</u>		
ENG 101	Composition I	3
CIS 100	CIS Introductory Seminar	1
CIS 215	Internet Programming Using JAVA	3
CIS 113	Visual Basic Programming	3
CIS 107	Conducting Business on the Internet	3
CIS 260	Career Seminar, Career Exploration (a)	<u>2</u>
	TOTAL	15
<u>SECOND SEMESTER</u>		
CIS 126	UNIX/LINUX	3
CIS 214	C++ Object Oriented Programming	3
CIS 235	Advanced JAVA Programming	3
CIS 261	Career Seminar, Career Advancement (a)	2
Elective (b)		3
Free Elective		<u>3-4</u>
	TOTAL	17-18
TOTAL 32 CREDIT HOURS		

- a. The cooperative education experience requires 10 hours per week of related work experience.
- b. Students must select courses from ACC, BUS, CIS, MAT, or BUS 103.

**COMPUTER INFORMATION SYSTEMS
COMPUTER NETWORKING (CNC)
(HEGIS 5101)
(Applied Academic Certificate)**

This certificate will provide the students with the necessary skills to design and manage a local area network. Upon completion of the certificate, the student, in addition to acquiring an understanding of the basic data communication concepts, will be proficient in the basic skills to coordinate both NOVELL and Windows NT networks. Students completing the certificate may pursue careers in network support and administration. Students continuing into two-year degree program are advised to consult the requirements for either the CIS or BUS Applied Science degree programs. No prior computer experience is required.

A Certificate is awarded upon completion of the requirements for this program.

Courses should be selected in consultation with an advisor.

<u>Course No.</u>	<u>Descriptive Title</u>	<u>Cr.Hrs.</u>
<u>FIRST SEMESTER</u>		
ENG 101	Composition I	3
CIS 100	CIS Introductory Seminar	1
CIS 111	Computer Systems and Applications	3
CIS 117	Data Communication Concepts	3
CIS 216	Local Area Networks I - Windows 2000	3
CIS 260	Career Seminar, Career Exploration (a)	<u>2</u>
	TOTAL	15
<u>SECOND SEMESTER</u>		
CIS 126	UNIX/LINUX	3
CIS 217	Local Area Networks II - NOVELL	3
CIS 107	Conducting Business on the Internet	
or CIS 108	Conducting Research on the Internet	3
CIS 261	Career Seminar, Career Advancement (a)	2
Elective (b)		3
Free Elective		<u>3-4</u>
	TOTAL	17-18
TOTAL 32 CREDIT HOURS		

- a. The cooperative education experience requires 10 hours per week of related work experience.
- b. Students must select courses from: ACC, BUS, CIS, MAT or BUS 103. Students wishing to become familiar with computer programming are encouraged to register for CIS 113. Students wishing to improve skills in computer applications are encouraged to register for either CIS 213 or CIS 120.