COMPUTER INFORMATION SYSTEMS (B.S.)

Evening study available

Bachelor of Science Program
Program Code: BS-SP
Major Code: CIS

Computer Information Systems Department
Technology Building 203
(716) 878-5528
cis.buffalostate.edu/ (https://cis.buffalostate.edu/)

The computer information systems program prepares students for entry-level positions, such as programmer, systems analyst, database administration, web programming or network support in the computer field, and provides them with the technical knowledge and managerial skills necessary for a wide range of subsequent career paths. There is a growing demand in all sectors for individuals with this combination of capabilities. This program was developed with the cooperation of employers and information systems professionals and, unlike a computer science program, its emphasis is on commercial applications of computers rather than theory.

Admission Requirements

Transfer students from parallel A.S. or A.A.S. programs in computer information systems or computer science, and students from nonparallel programs who have completed a programming course equivalent to CIS 151, are accepted directly into the CIS major on a competitive basis providing they have a minimum cumulative GPA of 2.5 and a minimum GPA of 2.0 in major courses from the transfer institution. Freshmen and transfer students who do not meet these requirements for admission to the CIS major are accepted into the CIS premajor (0824) with no special requirements. Premajors are expected to take CIS 151 within three semesters of entering the premajor. Freshmen who have 6 credits of AP computer science can be accepted directly into the CIS major (0825). CIS premajors, undeclared students, and students in other majors at Buffalo State can be admitted to the CIS major when they have

a. completed CIS 151 (or an equivalent transfer course) with a minimum grade of C or achieved a minimum GPA of 2.0 in CIS major courses taken at Buffalo State, and
b. achieved a minimum cumulative GPA of 2.5 at Buffalo State.

The CIS department is in the process of curricular revision. Please refer to college Web listings or the department for updated information.

Program Requirements

Code	Title	Credit Hours
General Education 23 Requirements (http://ecatalog.buffalostate.edu/undergraduate/collegewide-degree-requirements-baccalaureate-degrees/#IF_Courses)		
33 credit hours		33
Computer Information Systems Major Requirements (42 credit hours)		
Required Courses (24 credit hours)		
CIS 151	COMPUTER PROGRAMMING I	3
CIS 361	FUNDAMENTAL CONCEPTS IN OBJECT-ORIENTED PROGRAMMING [1]	3
or CIS 251	COMPUTER PROGRAMMING II	
CIS 315	COMPUTER ORGANIZATION	3
CIS 370	SYSTEMS ANALYSIS AND DESIGN	3
CIS 380	DATABASE SYSTEMS I	3
CIS 400	.NET APPLICATION DEVELOPMENT	3
CIS 410	COMPUTER OPERATING SYSTEMS	3
CIS 411	DATABASE SYSTEMS II	3
Electives (18 credit hours)		
Select from the following:		18
CIS 375	WEB DESIGN AND PROGRAMMING I	
CIS 388	SERVICE LEARNING IN COMPUTING	
CIS 391	INFORMATION TECHNOLOGY PROJECT MANAGEMENT	
CIS 413	MULTIMEDIA WEB PROGRAMMING	
CIS 414	MULTIMEDIA METHODS, TOOLS, PROGRAMMING, AND APPLICATIONS	
CIS 420	DATABASE MANAGEMENT SYSTEMS	
CIS 425	OBJECT-ORIENTED DEVELOPMENT	
CIS 427	E-COMMERCE SYSTEMS AND TECHNOLOGIES	
CIS 435	COMPUTER SEMINAR	
CIS 442	ADVANCED SYSTEMS APPLICATIONS	

CIS 461	PROGRAMMING WITH PYTHON	
CIS 470	DATA COMMUNICATIONS	
CIS 471	NETWORKING LABORATORY I	
CIS 473	IT TECHNICAL SUPPORT	
CIS 475	WEB DESIGN AND PROGRAMMING II	
CIS 478	CYBERSECURITY	
CIS 488	INTERNSHIP	
CIS 494	UNDERGRADUATE RESEARCH IN COMPUTING	
CIS 495	SPECIAL PROJECT	
CIS 499	INDEPENDENT STUDY	

In addition to the above courses, one non-CIS course may be taken as an elective with the department chair's permission.

Residency Requirements

A minimum of 21 credit hours must be completed in the CIS department at Buffalo State College.

No more than 3 credit hours of CIS 488 may be used to fulfill the CIS elective requirement.

No more than 3 credit hours of CIS elective requirement can be satisfied by credit hours from CIS 495 and CIS 499.

All College Electives

39-45 credit hours	39-45
Total Credit Hours	**120**

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Required only for transfer students who have not taken a course in C programming.

Students are able to:

1. Code and analyze computer programs.
2. Assess the Information Systems (IS) needs of clients.
3. Design, develop, and implement the information systems to meet IS needs of clients.
4. Describe the capabilities of, and interaction between software and hardware.
5. Plan, organize, cooperate, and communicate effectively as members of IS teams.
6. Design data systems to represent and process real world data.