Computer and Web Programming AAS Degree - 72 credits
Program Area: Computer Information Systems (Fall 2021)

REMEMBER TO REGISTER EARLY

Program Description
Students are prepared to provide technical skills necessary to develop and maintain effective web sites. Students will be taught the necessary skills to create mobile app and Windows software, as well as game development.

This program is offered on-campus and online.

Program Outcomes
- Plan, create, and host a website that incorporates appropriate use of visual elements, graphics, and multimedia.
- Develop and apply both front-end and back-end web development techniques.
- Analyze and build web-based or computer-based applications using appropriate programming languages and data.
- Practice effective problem-solving methods to build and test computer or web programs to solve business problems.
- Model and construct interfaces between database systems and websites or application programs.
- Design and implement basic game development using suitable programming language and platform.

Program Articulations
This program has the following articulations to 4-year degree programs:

- Minnesota State University, Moorhead, BS in Operations Management

- Minnesota State University, Moorhead, BS in Project Management:

Required Courses

Number	Name	Credits	Term
CIS 1402	Foundations of CIS	3	
CIS 1406	HTML/CSS	3	
CIS 1410	Web Site Design	3	
CIS 1415	Introduction to Programming	4	
CIS 1408*	Scripting and Frameworks	4	
CIS 1420*	Advanced Web Site Design	4	
CIS 1430	Data Analytics Fundamentals	3	
CIS 2635	Java Programming	3	
CIS 1412*	Web Graphics I	3	
CIS 1610*	Server-side Scripting	4	
CIS 2620*	Game Development and Object-Oriented Programming	4	
CIS 2621*	Advanced Game Development and Object-Oriented Programming	4	
CIS 2640	Mobile App Development	3	
CIS 2980	Internship	1	
CIS 2987	CIS Capstone	3	
Technical Electives CIS	Choose 8 credits from the following: Any CIS course (except CIS 1400)	8	
CIS 1745	Unix System Administration (3 credits)		
CIS 1810*	Security Fundamentals (3 credits)		
CIS 2972*	SQL Server Administration (3 credits)		
CIS 2560*	Web Server Administration (3 credits)		
CIS 2976	Emerging Technologies (1 credit)		
CIS 2980	Internship (1-4 credits)		
CIS 2999	Special Topics in Computer Information Systems (1-4 credits)		
Minnesota Transfer Curriculum	College-level math or PHIL 1125 (Goal Area 4) (3-4 credits) Elective credits from two additional Goal Areas of the Minnesota Transfer Curriculum (select from Goal Areas 1-3 and 5-10)	15	

Total Credits   **72**

*Requires a prerequisite or a concurrent course

Pre-program Requirements

Successful entry into this program requires a basic level of keyboarding skills and a specific level of skill in the areas of English, mathematics, and reading.

English/Reading:
- Eligible for ENGL 1106 - College Composition I, or
- Completion of ENGL/READ 0950/0955 (or equivalent or higher). ENGL/READ 0950/0955 may be taken concurrently with Semester I coursework.

Mathematics:
- Eligible for MATH 0970 - Intermediate Algebra, or
- Completion of MATH 0950/0955 (or equivalent or higher). MATH 0950/0955 may be taken concurrently with Semester I coursework.

There are other ways to qualify. Visit Course Placement (lsc.edu/course-placement) to find out more.

For interpretation of test results and selection of appropriate coursework; or general information about the program, admissions, financial aid, and getting started at LSC,
contact the professional advising team (advising@lsc.edu) or 218-733-7601

For more information about the Computer and Web Programming AAS Degree including course descriptions, course prerequisites, and potential career opportunities,
see the program website (https://degrees.lsc.edu/programming/)

or

Contact Faculty Advisor, Anup Parajuli (anup.parajuli@lsc.edu) at 218-733-5955