



**South Central College**  
**Program Design**

## **AAS 3275 Information Systems**

### **Program Information**

**Instructional Level** Associate Degree

**Career Cluster** Arts, Communications, & Information Systems

### **Description**

This program is designed to prepare the learner for a career as a computer programmer, programmer/analyst, database programmer, database administrator, technical writer, technical support specialist, help desk specialist, web designer, web developer, webmaster. The learner will receive a solid background in the basic concepts of computer programming, web page development, web server application development, management and maintenance of web servers, and electronic commerce concepts. The learner will be exposed to major programming languages, systems analysis, and software design, computer operating systems, and Internet services.

### **Program Admission Dates (Fall and/or Spring)**

Fall and Spring

### **Program Location (North Mankato and/or Faribault)**

North Mankato

### **Program Student Learning Outcomes**

- 1 Design and code software applications using a variety of programming languages.
- 2 Utilize and maintain databases
- 3 Use current techniques, skills, and tools necessary for Information Systems
- 4 Analyze a problem, identify and define requirements appropriate to its solution.
- 5 Use knowledge and skills related to information technologies to enhance business administration and decision making.
- 6 Implement current cloud technologies

### **Program Configurations**

#### **Fall Start**

#### **Credits**

Technical Course	19
Liberal Arts & Sciences	15
Elective	20

**Semester 1**

Course #	Course Title	Credits	Function
COMP 1200	Hardware and Software Essentials	4	Technical Course
COMM Choice	COMM110 or COMM120 or COMM140	3	Liberal Arts & Sciences
COMP 1140	Web For Business	3	Technical Course
COMP 1120	Foundations of Computing	4	Technical Course

**Semester 2**

Course #	Course Title	Credits	Function
COMP 1360	Introduction to Data Communications and Networking	4	Technical Course
ENGL Choice	ENGL100 or ENGL240	4	Liberal Arts & Sciences
COMP 1125	Spreadsheet/Database Integration	4	
COMP 1130	Programming Fundamentals	4	

**Semester 3**

Course #	Course Title	Credits	Function
	Additional LAS Course not from MnTC Goal Areas 1 or 4	4	Liberal Arts & Sciences
Technical Elective	Choose two or three: COMP2145 Web Programming, COMP2300 Java, GCC1120 Graphic Software I, COMP2460 Linux Administration	4	Elective
Technical Elective	Choose two or three: COMP2145 Web Programming, COMP2300 Java, GCC1120 Graphic Software I, COMP2460 Linux Administration	4	Elective
Technical Elective	Choose two or three: COMP2145 Web Programming, COMP2300 Java, GCC1120 Graphic Software I, COMP2460 Linux Administration	4	Elective

**Semester 4**

Course #	Course Title	Credits	Function
MATH Choice	MATH115 or MATH120	4	Liberal Arts & Sciences
Technical Elective	Choose two or three: COMP2150 Web Services, COMP2312 Software Development, GCC1120 Graphic Software I	4	Elective

Technical Elective	<b>Choose two or three: COMP2150 Web Services, COMP2312 Software Development, GCC1120 Graphic Software I</b>	4	Elective
COMP 2496	<b>Capstone - Software Development</b>	4	Technical Course

## Spring Start

### Credits

Technical Course	25
Liberal Arts & Sciences	15
Elective	20

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**Total Credits** **60**

### Semester 1

Course #	Course Title	Credits	Function
COMP 1200	<b>Hardware and Software Essentials</b>	4	Technical Course
COMP 1140	<b>Web For Business</b>	3	Technical Course
COMM Choice	<b>COMM110 or COMM120 or COMM140</b>	3	Liberal Arts & Sciences
COMP1120	<b>Foundations of Computing</b>	4	Technical Course

### Semester 2

Course #	Course Title	Credits	Function
COMP 1360	<b>Introduction to Data Communications and Networking</b>	4	Technical Course
ENGL Choice	<b>ENGL100 or ENGL240</b>	4	Liberal Arts & Sciences
COMP1125	<b>Spreadsheet/Database Integration</b>	4	Technical Course
COMP1130	<b>Programming Fundamentals</b>	4	Technical Course

### Semester 3

Course #	Course Title	Credits	Function
	<b>Additional LAS Course not from MnTC Goal Areas 1 or 4</b>	4	Liberal Arts & Sciences
Technical Elective	<b>Choose two or three: COMP2150 Web Services, COMP2312 Software Development, GCC1120 Graphic Software I</b>	4	Elective
Technical Elective	<b>Choose two or three: COMP2150 Web Services, COMP2312 Software Development, GCC1120 Graphic Software I</b>	4	Elective
MATH Choice	<b>MATH115 or MATH120</b>	4	Liberal Arts &

			Sciences
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## Semester 4

Course #	Course Title	Credits	Function
COMP2496	Capstone - Software Development	2	Technical Course
Technical Elective	Choose two or three: COMP2145 Web Programming, COMP2300 Java, GCC1120 Graphic Software I, COMP2460 Linux Administration	4	Elective
Technical Elective	Choose two or three: COMP2145 Web Programming, COMP2300 Java, GCC1120 Graphic Software I, COMP2460 Linux Administration	4	Elective
Technical Elective	Choose two or three: COMP2145 Web Programming, COMP2300 Java, GCC1120 Graphic Software I, COMP2460 Linux Administration	4	Elective

## Program Course List

Number	Title	Credits	Pre/Corequisites
COMP 2150	Web Services	4	COMP 1130 with a C (2.0) or better COMP 1140 with a C (2.0) or better
COMP 1120	Foundations of Computing	4	Prerequisite None
COMP 1125	Spreadsheet/Database Integration	4	None
COMP 1130	Programming Fundamentals	4	COMP1120 Foundations of Computing
COMP 1140	Web For Business	3	None
COMP 1200	Hardware and Software Essentials	4	(Skill) - Basic Windows navigation; Click, Double-click, etc. (Skill) - Internet usage such as email, internet searching, etc. (Skill) - Window Explorer, such as file organization, searches, etc.
COMP 1360	Introduction to Data Communications and Networking	4	None.
COMP 2145	Web Programming	4	C (2.0) or better in COMP1140 C (2.0) or better in COMP1130 OR Instructor permission
COMP 2300	Java	4	Successful completion of COMP1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.  Note: Prerequisites ensure that you are at the correct learning level for the

			course. Please feel free to contact the instructor to help you determine your expertise level if you have not completed the prerequisite courses.
<b>COMP 2312</b>	<b>Software Development</b>	4	Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or a working knowledge of at least one programming language.
<b>COMP 2456</b>	<b>Cloud Technologies and Services</b>	4	COMP 1200 Hardware and Software Essentials
<b>COMP 2460</b>	<b>Linux Administration</b>	4	COMP 1200 COMP 1360
<b>COMP 2475</b>	<b>Security Basics</b>	4	COMP 1360
<b>COMP 2496</b>	<b>Capstone - Software Development</b>	4	
<b>ENGL 100</b>	<b>Composition</b>	4	Next-Generation Accuplacer Reading minimum score of 250 (Classic Accuplacer, minimum of 75) or completion of READ 0090 or EAP 0095 with a C (2.0) or higher.
<b>MATH 115</b>	<b>Concepts in Mathematics</b>	4	MATH 0085 with a grade of C or higher, or a score of 76 or higher on the Elementary Algebra portion of the Accuplacer test.