

# Information Systems - Information Security Management Emphasis, B.S.

Managing the security of information systems is extremely important for all types of organizations to protect the systems from data breaches. The BS in Information Systems program prepares students to be Information Systems professionals. Graduates develop and deploy enterprise-level systems to meet organizational needs. The Information Security Management (ISM) emphasis prepares students for information technology management and information security analyst positions.

## Program Requirements

Code	Title	Credit Hours
<b>Total Credit Hours</b>		<b>123</b>
<b>Information Systems Requirements</b>		<b>99 Credits</b>
Complete the requirements		99
<b>Emphasis Requirements</b>		<b>24 Credits</b>
INFO 4410	Database Administration	3
CYBR 4150	Data Security Analytics	3
CYBR 4350	Web and Application Security	3
CYBR 4250	Database Security and Auditing	3
CYBR 4700	Enterprise Cybersecurity Management	3
Emphasis Elective Requirements:		
Complete 9 credit hours from the following advanced upper-division courses:		9
IT 4750	Information Technology Operations Capstone (3)	
CYBR 3350	Intellectual Property and Cyber Law (3)	
INFO 3330	Client-Side Web Development (undefined)	
INFO 3360	Server-Side Web Frameworks (undefined)	
INFO 4300	Enterprise Web Development (3)	
INFO 481R	Internship (3)	
Other approved upper-division Information Systems courses		

## Core Requirements

Code	Title	Credit Hours
<b>Total Credit Hours</b>		<b>99</b>
<b>General Education Requirements</b>		<b>36 Credits</b>
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC Literacies and Composition Across Contexts CC	3
ENGL 2010	Intermediate Academic Writing CC	3
MATH 1050 or MATH 1055	College Algebra QL College Algebra with Preliminaries QL	4
American Institutions:		
Complete one of the following:		3
HIST 2700 & HIST 2710	US History to 1877 AS and US History since 1877 AS (6)	
HIST 1700	American Civilization AS (3)	
HIST 1740	US Economic History AS (3)	
POLS 1000	American Heritage AS (3)	
POLS 1100	American National Government AS (3)	
PHIL 2050	Ethics and Values IH	3

HLTH 1100 or EXSC 1097	Personal Health and Wellness TE Fitness for Life TE	2
<b>Distribution Courses:</b>		
Biology Distribution		3
Physical Science Distribution		3
An Additional Biology or Physical Science Distribution Course		3
Fine Arts Distribution		3
Humanities Distribution		3
Social/Behavioral Science Distribution <sup>1</sup>		3
<b>Discipline Core Requirements</b>		<b>63</b>
		<b>Credits</b>
<b>Math Requirement:</b>		
MGMT 2340	Business Statistics I	3
<b>IS Core Requirements:</b>		
INFO 1120	Information Systems and Technology Fundamentals	3
INFO 1200 or CS 1400	Computer Programming I for IS IT Fundamentals of Programming	3
INFO 2200	Computer Programming II for IS IT	3
INFO 2410	Database Fundamentals	3
INFO 2420	Web Application Design	3
IM 2600	Spreadsheet Applications	3
IT 1510	Introduction to System Administration--Linux/UNIX	3
IT 2600	Data Communication Fundamentals	3
CYBR 2700	Information Security Fundamentals	3
INFO 3130	Introduction to Applied Data Analytics	3
INFO 3300	Web Systems Development	3
INFO 3410	Database Systems and Warehousing	3
INFO 3430	Systems Analysis and Design WE	3
INFO 405G	Global Ethical and Professional Perspectives in IS and IT GI WE	3
INFO 4430	Systems Design and Implementation	3
<b>IS Environment/Business Foundation Requirements:</b>		
MKTG 220G	Written Business Communication GI WE	3
ACC 2110	Principles of Accounting I	3
MGMT 3000	Organizational Behavior WE	3
MKTG 3600	Principles of Marketing	3
Any 3-credit 1000 or 2000 level course from ACC, ECON, FIN, MGMT, HR, MKTG		3

1

ECON 2010 Principles of Economics I SS recommended.

## Graduation Requirements

1. Completion of at least 123 semester credits required in the BS degree; at least 40 credit hours must be upper-division courses.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all discipline core, specialty core, and elective courses with no grade lower than a "C-."
3. Residency hours: Minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements. Students are responsible for completing all prerequisite courses.
5. Successful completion of at least one Global/Intercultural course.
6. Successful completion of at least two Writing Enriched (WE) courses.

## Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

### First Year

Semester 1		Credit Hours
ENGL 1010	Introduction to Academic Writing CC	3
MATH 1050 or MATH 1055	College Algebra QL or College Algebra with Preliminaries QL	4
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE or Fitness for Life TE	2
Social/Behavioral Science Distribution		3
INFO 1120	Information Systems and Technology Fundamentals	3

**Credit Hours 15**

### Semester 2

ENGL 2010	Intermediate Academic Writing CC	3
Biology Distribution		3
INFO 1200 or CS 1400	Computer Programming I for IS IT or Fundamentals of Programming	3
INFO 2420	Web Application Design	3
IM 2600	Spreadsheet Applications	3
ACC 2110	Principles of Accounting I	3

**Credit Hours 18**

### Second Year

#### Semester 3

MGMT 2340	Business Statistics I	3
IT 2600	Data Communication Fundamentals	3
INFO 2200	Computer Programming II for IS IT	3
INFO 2410	Database Fundamentals	3
MKTG 220G	Written Business Communication GI WE	3

**Credit Hours 15**

#### Semester 4

PHIL 2050 or PHIL 205G	Ethics and Values IH or Ethics and Values IH GI	3
Fine Arts Distribution		3
CYBR 2700	Information Security Fundamentals	3
INFO 3130	Introduction to Applied Data Analytics	3
Any 1000 or 2000 level course from ACC, ECON, FIN, MGMT, HR, MKTG		3

**Credit Hours 15**

### Third Year

#### Semester 5

American Institutions		3
Physical Science Distribution		3
INFO 3410	Database Systems and Warehousing	3
INFO 3300	Web Systems Development	3
IT 1510	Introduction to System Administration--Linux/UNIX	3

**Credit Hours 15**

#### Semester 6

Third Science Distribution		3
Humanities Distribution		3
MKTG 3600	Principles of Marketing	3
INFO 4410	Database Administration	3
Emphasis Elective		3

**Credit Hours 15**

### Fourth Year

#### Semester 7

INFO 3430	Systems Analysis and Design WE	3
MGMT 3000	Organizational Behavior WE	3
CYBR 4150	Data Security Analytics	3
CYBR 4700	Enterprise Cybersecurity Management	3

Emphasis Elective		3
	<b>Credit Hours</b>	<b>15</b>
<b>Semester 8</b>		
INFO 405G	Global Ethical and Professional Perspectives in IS and IT GI WE	3
INFO 4430	Systems Design and Implementation	3
CYBR 4250	Database Security and Auditing	3
CYBR 4350	Web and Application Security	3
Emphasis Elective		3
	<b>Credit Hours</b>	<b>15</b>
	<b>Total Credit Hours</b>	<b>123</b>

## Program Learning Outcomes

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Support the delivery, use, and management of information systems within an information systems environment.
7. Implement specific technical mechanisms and business processes needed to secure access, integrity, and availability of modern information systems.