

## Information Technology - Network Administration and Security Emphasis, B.S.

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### Requirements

Every organization uses some form of information technology to perform its operations. The Bachelor of Science in Information Technology (IT) degree prepares students to install, manage, and maintain the computing infrastructure on which organizational systems run. The Network Administration and Security emphasis prepares students to work as data communication consultants, information security analysts, and network administrators. The core of the BS IT program prepares students to have a strong foundation in computer architecture, data communication, information security, networks, and system administration.

### Total Program Credits: 122

General Education Requirements:			38 Credits
	ENGL 1010	Introduction to Academic Writing	3
or	ENGL 1005	Literacies and Composition Across Contexts (5)	
	ENGL 2010	Intermediate Writing Academic Writing and Research	3
	MATH 1050	College Algebra	4
or	MATH 1055	College Algebra with Preliminaries (5)	
Complete one of the following:			3
	HIST 2700	US History to 1877 (3.0)	
and	HIST 2710	US History since 1877 (3.0)	
	HIST 1700	American Civilization (3.0)	
	HIST 1740	US Economic History (3.0)	
	POLS 1000	American Heritage (3.0)	
	POLS 1100	American National Government (3.0)	
Complete the following:			
	PHIL 2050	Ethics and Values	3
	HLTH 1100	Personal Health and Wellness	2
or	EXSC 1097	Fitness for Life (2)	
Distribution Courses:			
	Biology Distribution		3
	Physical Science Distribution		3
	PHYS 2010	College Physics I	4
and	PHYS 2015	College Physics I Lab (fulfills Additional Biology or Physical Science Distribution)	1
	Fine Arts Distribution		3
	ENGL 2100	Technical Communication WE (fulfills Humanities Distribution)	3
	Social/Behavioral Science Distribution <sup>1</sup>		3
Discipline Core Requirements:			63 Credits
Math Requirement:			
	STAT 2050	Introduction to Statistical Methods (4)	
or	MGMT 2340	Business Statistics I	3

IT Core Requirements:			
	INFO 1120	Information Systems and Technology Fundamentals	3
	INFO 1200	Computer Programming I for IS/IT	3
	IT 1510	Introduction to System Administration--Linux/UNIX	3
	IT 1600	Computer Architecture and Systems Software	3
	INFO 2410	Database Fundamentals	3
	IT 2530	Introduction to System Administration--Windows Client	3
	IT 2600	Data Communication Fundamentals	3
or	CS 2600	Computer Networks I (3)	
	IT 2700	Information Security Fundamentals	3
	INFO 3300	Web Systems Development	3
	INFO 3430	Systems Analysis and Design WE	3
	IT 3510	Advanced System Administration--Linux/UNIX	3
	IT 3530	Advanced System Administration--Windows Server	3
	IT 3600	Internetworking and Router Management	3
	IT 3700	Information Security--Network Defense and Countermeasures	3
	INFO 405G	Global Ethical and Professional Perspectives in IS and IT WE	3
	INFO 4430	Systems Design and Implementation	3
	IT 4600	Enterprise Network Architectures and Administration	3
	IT 4700	Enterprise Information Security Management	3
IT Application Domain Requirement:			6
Two specified courses to provide students with knowledge of an application domain of their choice and interest. (See department advisor for list of approved courses.) <sup>2</sup>			
Some possible application domains are:			
	Accounting/IT Auditor		
	Business		
	Communications		
	Computer Science		
	Construction		
	Criminal Justice (Choose this domain for Computer Forensics and Security emphasis)		
	Forensics		
	Geographic Information Systems		
	Health professions		
	Hospitality Management		
	Manufacturing/Production		
	Military Science		
	Multimedia/Digital Media		
	Physical Sciences		

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Social Sciences		
Emphasis Requirements:		9 Credits
IT 2400	Voice and Data Cabling Fundamentals	3
IT 4750	Network Security and Operations Capstone	3
INFO 4425	Web Application Security	3
Emphasis Elective Requirements:		12 Credits
Complete 12 credit hours from the following (6 credits must be 3000 or higher):		12
INFO 2200	Computer Programming II for IS/IT (3.0)	
INFO 2420	Web Application Design (3.0)	
INFO 3330	Client-Side Web Development (3.0)	
INFO 3360	Server-Side Web Frameworks (3.0)	
INFO 3410	Database Systems and Warehousing (3.0)	
INFO 4135	Data Security Analytics (3.0)	
INFO 4410	Database Administration (3.0)	
INFO 4415	Database Security and Auditing (3.0)	
INFO 459R	Current Topics in Information Systems (3.0)	
IT 1200	Scripting for Administrators (3.0)	
IT 2800	Computer Forensic Fundamentals (3.0)	
IT 3350	Intellectual Property and Cyber Law (3.0)	
IT 3540	Mac OS and Server Support (3.0)	
IT 459R	Current Topics in Information Technology (3.0)	
IT 481R	Internship (1.0)	
CS 3270	Python Software Development (3.0)	
Other approved upper-division Information Technology and Information Systems courses		

CJ 1330 Criminal Law and CJ 1340 Criminal Investigations.
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### **Graduation Requirements:**

1. Completion of at least 122 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. Completion of GE global intercultural requirement. INFO 405G satisfies this requirement.
6. Successful completion of at least one Global/Intercultural course.

Footnotes:	
<sup>1</sup> CJ 1010 Introduction to Criminal Justice SS for Forensics emphasis	
<sup>2</sup> For the Computer Forensics and Security emphasis, the following 2 courses are required:	

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**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](#).

Milestone courses (pre-requisites for a course in one of the subsequent semesters) are marked in red and italicized.

Semester 1	Course Title	Credit Hours
<i>ENGL 1010</i>	Introduction to Writing	3
<i>MATH 1050 or MATH 1055</i>	College Algebra or College Algebra with Preliminaries	4
INFO 1120	Information Systems and Technology Fundamentals	3
<i>IT 1600</i>	Computer Architecture and Systems Software	3
HLTH 1100 or EXSC 1097		2
	Semester Total:	15
Semester 2	Course Title	Credit Hours
ENGL 2010	Intermediate Writing	3
<i>INFO 1200</i>	Computer Programming I for IS IT	3
<i>IT 2600</i>	Data Communication Fundamentals	3
<i>IT 1510</i>	Introduction to System Administration--Linux/UNIX	3
ENGL 2310	Technical Communication	3
	Semester Total:	15
Semester 3	Course Title	Credit Hours
MGMT 2340	Business Statistics I	3
<i>IT 2530</i>	Introduction to System Administration--Windows Client	3
<i>IT 2700</i>	Information Security Fundamentals	3
<i>INFO 3300</i>	Web Systems Development	3
<i>INFO 3430</i>	Systems Analysis and Design WE	3
	Semester Total:	15
Semester 4	Course Title	Credit Hours
INFO 4430	Systems Design and Implementation	3
<i>IT 3510</i>	Advanced System Administration--Linux/UNIX	3
IT 3530	Advanced System Administration--Windows Server	3
IT 2400	Voice and Data Cabling Fundamentals	3
<i>IT 3600</i>	Internetworking and Router Management	3
	Semester Total:	15

Semester 5	Course Title	Credit Hours
Elective		3
DOMAIN		3
DOMAIN		3
Biology Distribution		3
INFO 4425	Web Application Security	3
IT 3700	Information Security--Network Defense and Countermeasures	3
	Semester Total:	18
NOTE: INFO 4425 is offered Spring only.		
Semester 6	Course Title	Credit Hours
Elective		3
IT 4600	Enterprise Network Architectures and Administration	3
<i>IT 4700</i>	Enterprise Information Security Management	3
INFO 405G	Global Ethical and Professional Perspectives in IS and IT	3
Elective		3
	Semester Total:	15
NOTE: IT 3350 is offered Fall and Summer only.		
Semester 7	Course Title	Credit Hours
IT 4750	Network Security and Operations Capstone	3
PHYS 2015	College Physics I Lab	1
PHYS 2010	College Physics I	4
Elective		3
Fine Arts Distribution		3
	Semester Total:	14
Semester 8	Course Title	Credit Hours
American Institutions		3
Humanities Distribution		3
Social/Behavioral Science Distribution		3
Third Science Distribution		3
Physical Science Distribution		3
	Semester Total:	15
	Degree total:	122