

Information Technology, B.S.

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

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		122
General Education Requirements		38 Credits
ENGL 1010 or ENGL 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
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) (recommended for Forensics emphasis)	
POLS 1100	American National Government AS (3)	
Complete the following:		
PHIL 2050 or PHIL 205G	Ethics and Values IH Ethics and Values IH GI	3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE Fitness for Life TE	2
Distribution Courses:		
Biology Distribution		3
BIOL 1011	Introduction to Bioinformatics BB (3) (Recommended)	
Physical Science Distribution		3
PHYS 2010 & PHYS 2015	College Physics I PP and College Physics I Lab (fulfills Additional Biology or Physical Science Distribution)	5
Fine Arts Distribution		3
ENGL 2100	Technical Communication HH WE	3
Social/Behavioral Science Distribution ¹		3
Discipline Core Requirements		84 Credits
Math Requirement:		
CS 2300	Discrete Mathematical Structures I	3
IT Core Requirements:		
MGMT 2340	Business Statistics I	3
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 2200	Computer Programming II for IS IT	3
INFO 2410	Database Fundamentals	3
IT 2530	Introduction to System Administration--Windows Client	3

IT 2600 or CS 2600	Data Communication Fundamentals Computer Networks I	3
CYBR 2700	Information Security Fundamentals	3
INFO 3300	Web Systems Development	3
INFO 3430	Systems Analysis and Design WE	3
IT 3200	Cloud Foundations	3
IT 3510	Advanced System Administration--Linux/UNIX	3
IT 3530	Advanced System Administration--Windows Server	3
IT 3600	Internetworking and Router Management	3
INFO 405G	Global Ethical and Professional Perspectives in IS and IT GI WE	3
IT 4300	IoT-Internet of Things	3
IT 4600	Enterprise Network Architectures and Administration	3
CYBR 4700	Enterprise Cybersecurity Management	3
IT 4750	Information Technology Operations Capstone	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.)²

Some possible application domains are:

- Accounting/IT Auditor
- Business
- Communications
- Computer Science
- Construction
- Criminal Justice
- Geographic Information Systems
- Health professions
- Hospitality Management
- Manufacturing/Production
- Military Science
- Multimedia/Digital Media
- Physical Sciences
- Social Sciences

BS IT Elective Domain Requirements: 12

Select one of the following domains (12 Credit hours)

Enterprise IT Domain

Select 12 Credits Hours from the following:

IT 3540	Supporting Apple Technologies (3)
IT 459R	Current Topics in Information Technology (3)
IT 481R	Internship (1-3)
INFO 3410	Database Systems and Warehousing (3)
INFO 4440	Enterprise Computing Environments (3)
CS 3140	Network and Cloud Security (3)

Database Domain

Complete the following 9 Credits Hours

INFO 3410	Database Systems and Warehousing (3)
INFO 4410	Database Administration (3)
INFO 4440	Enterprise Computing Environments (3)
IT 481R or CYBR 4250	Internship (1-3) Database Security and Auditing

Web/Mobile Development Domain

Complete the following 9 Credit Hours

INFO 2420	Web Application Design (3)
-----------	----------------------------

INFO 3330	Client-Side Web Development (3)
INFO 3360	Server-Side Web Frameworks (3)
Elective (3 Credit Hours) - Select one course form the following:	
INFO 4300	Enterprise Web Development (3)
INFO 4420	Mobile Application Development (3)
CS 3270	Python Software Development (3)
Cybersecurity Domain	
Complete the following 9 Credit Hours	
CYBR 2800	Computer Forensic Fundamentals (undefined)
CYBR 3350	Intellectual Property and Cyber Law (undefined)
CYBR 3700	Ethical Hacking and Countermeasures (undefined)
CYBR 4450	Internet of Things Security (undefined)
or CS 3140	Network and Cloud Security
Business Intelligence and Big Data Domain	
Complete the following 9 Credit Hours	
INFO 3130	Introduction to Applied Data Analytics (3)
INFO 4120	Data Visualization (3)
INFO 4130	Data Science and Big Data Analytics (3)
INFO 3410	Database Systems and Warehousing (3)
or IT 481R	Internship

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 Global Ethical and Professional Perspectives in IS and IT GI WE satisfies this requirement.
6. Successful completion of at least one Global/Intercultural course.
7. 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 or ENGL 1005	Introduction to Academic Writing CC or Literacies and Composition Across Contexts CC	3
MATH 1050 or MATH 1055	College Algebra QL or College Algebra with Preliminaries QL	4
Social/Behavior Science		3
INFO 1120	Information Systems and Technology Fundamentals	3
IT 1510	Introduction to System Administration--Linux/UNIX	3
Credit Hours		16
Semester 2		Credit Hours
ENGL 2010	Intermediate Academic Writing CC	3
Fine Arts Distribution		3
PHYS 2010	College Physics I PP	4
PHYS 2015	College Physics I Lab	1
INFO 1200	Computer Programming I for IS IT	3
IT 1600	Computer Architecture and Systems Software	3
Credit Hours		17

Second Year**Semester 3**

PHIL 2050 or PHIL 205G	Ethics and Values IH or Ethics and Values IH GI	3
INFO 2200	Computer Programming II for IS IT	3
INFO 2410	Database Fundamentals	3
MGMT 2340	Business Statistics I	3
IT 2600 or CS 2600	Data Communication Fundamentals or Computer Networks I	3
Credit Hours		15

Semester 4

HLTH 1100 or EXSC 1097	Personal Health and Wellness TE or Fitness for Life TE	2
INFO 3300	Web Systems Development	3
IT 2530	Introduction to System Administration--Windows Client	3
IT 3600	Internetworking and Router Management	3
CYBR 2700	Information Security Fundamentals	3
Credit Hours		14

Third Year**Semester 5**

Biology Distribution	BIOL 1011 Introduction for Bioinformatics BB recommended	3
ENGL 2100	Technical Communication HH WE	3
CS 2300	Discrete Mathematical Structures I	3
IT 3200	Cloud Foundations	3
IT 3510	Advanced System Administration--Linux/UNIX	3
Credit Hours		15

Semester 6

Physical Science Distribution		3
IT 3530	Advanced System Administration--Windows Server	3
IT 4600	Enterprise Network Architectures and Administration	3
IT Application Domain		3
BS IT Elective Domain		3
Credit Hours		15

Fourth Year**Semester 7**

American Institutions		3
INFO 3430	Systems Analysis and Design WE	3
CYBR 4700	Enterprise Cybersecurity Management	3
IT Application Domain		3
BS IT Elective Domain		3
Credit Hours		15

Semester 8

INFO 405G	Global Ethical and Professional Perspectives in IS and IT GI WE	3
IT 4750	Information Technology Operations Capstone	3
IT 4300	IoT-Internet of Things	3
BS IT Elective Domain		3
BS IT Elective Domain		3
Credit Hours		15
Total Credit Hours		122

Program Learning Outcomes

1. Analyze a complex computing problem and to 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. Use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals.