

Computing and Design - Information Technology Emphasis, B.S.

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Program Description

This program provides students with a broad introduction to technology for professional practice, with an emphasis on the hands-on application of technology to solve problems. Students can choose to emphasize in Information Technology (focusing on networking, system administration, and databases), Software Development (focusing on the professional development of software), Web Design and Development (focusing on the design and implementation of web and mobile applications), or they can choose a broad treatment of technology subjects without an emphasis.

Admission Requirements

Incoming students will be placed in pre-program designations CIT-P or CS-P until they have completed the requirements below with a 2.5 or higher GPA. When students have completed the program admission requirements, they will meet with a CIT advisor to be officially accepted into the program.

Code	Title	Hours
Bachelor of Science in Computer & Information Technology - Information Technology Emphasis		
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
or MATH 1100	Business Calculus (MA)	
IT 1100	Introduction to Unix/Linux	3
IT 1200	A+ Computer Hardware/Windows OS	3
IT 2400	Intro to Networking	3
WEB 1400	Web Design I: Fundamentals (ALCS)	3

Program Curriculum

120 credits

DSU General Education Requirements

All DSU General Education requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to DSU's minimum General Education standards in American Institutions, English, and Mathematics.

Code	Title	Hours
General Education Core Requirements (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		
	English	3-7
	Mathematics	3-5
	American Institutions	3-6
	Life Sciences	3-10
	Physical Sciences	3-5
	Laboratory Science	0-1
	Fine Arts	3
	Literature/Humanities	3
	Social & Behavioral Sciences	3
	Exploration	3-5

Code	Title	Hours
Core Discipline Requirements		
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
ENGL 3010	Business Communication and Ethics	3
IT 1100	Introduction to Unix/Linux	3
IT 1200	A+ Computer Hardware/Windows OS	3
IT 2400	Intro to Networking	3
IT 2500	Cloud Computing	3
IT 3100	Systems Design and Administration I	3
IT 3110	System Automation	3
IT 3150	Windows Servers	3
IT 3300	DevOps Virtualization	3
IT 3400	Intermediate Computer Networking	3
IT 4200	DevOps Lifecycle Management	3
IT 4300	Database Design & Management	3
IT 4400	Network Design & Management	3
IT 4500	Information Security	3
IT 4510	Ethical Hacking & Network Defense	3
IT 4600	Senior Project	3
MATH 1050	College Algebra / Pre-Calculus (MA)	4
WEB 1400	Web Design I: Fundamentals (ALCS)	3
Discipline Elective Requirements		
Complete 12 credits from the following:		
BUS 1010	Introduction to Business	3
CJ 2700	Introduction to Digital Forensics	3
CS 2420	Introduction to Algorithms and Data Structures	3
CS 2450	Software Engineering	3
CS 3005	Programming in C++	3
CS 3010	Mobile Application Development for Android	3
CS 3020	Mobile Application Development: iOS	3
CS 3200	Web Application Development I	3
CS 3500	Application Development	3
CS 3600	Graphics Programming	3
CS 4200	Web Application Development II	3
DES 1100	Intro to Digital Design	3
DES 1300	Design I	3
IT 4060	Big Data Analytics	3
IT 4070	Big Data Visualization	3
IT 4100	Files Systems and Storage Technologies	3
IT 4310	Database Administration	3
IT 4920R	Internship	1-3
IT 4990	Special Topics in Information Technology	3
WEB 3200	Web Application Development I	3
WEB 3400	Web Design II: Essentials (ALCS)	3
WEB 3500	Tech Entrepreneurship	3
WEB 3550	Online Marketing and SEO (ALCS)	3
WEB 4200	Web Application Development II	3

NOTE: A course may only be used to fulfill one program requirement. Dual-listed courses may only be used once to fill requirements. Consult course descriptions in the current catalog to verify dual-listed courses.

Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits.
3. Complete at least 30 upper-division credits at DSU for institutional residency.
4. Cumulative GPA 2.0 or higher.
5. Grade C- or higher in each Core Discipline and Elective Requirement course.

Graduation Plan

Course	Title	Hours
1st Year		
Fall Semester		
First Year Recommended Elective		2
IT 1100	Introduction to Unix/Linux	3
WEB 1400	Web Design I: Fundamentals (ALCS)	3
ENGL 1010 or ENGL 1010D	Introduction to Writing (EN) or Introduction to Writing (EN)	3
MATH 1050	College Algebra / Pre-Calculus (MA) (meets General Education (Mathematics) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext))	4
Milestones & Notes: Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
Hours		15
Spring Semester		
CS 1400	Fundamentals of Programming	3
IT 1200	A+ Computer Hardware/Windows OS	3
IT 2400	Intro to Networking	3
ENGL 2010	Intern Writing Selected Topics: (EN)	3
General Education (Social & Behavioral Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Milestones & Notes: Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
Hours		15
2nd Year		
Fall Semester		
CS 1410	Object Oriented Programming	3
IT 3100	Systems Design and Administration I	3
IT 3300	DevOps Virtualization	3
General Education (American Institutions) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
General Education (Fine Arts) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Milestones & Notes: Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
Hours		15
Spring Semester		
IT 3110	System Automation	3
IT 3150	Windows Servers	3
IT Elective: Upper Division		3
IT Elective: Upper Division		3
General Education (Literature/Humanities) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Milestones & Notes: Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
Hours		15
3rd Year		
Fall Semester		
IT 4200	DevOps Lifecycle Management	3
IT 4300	Database Design & Management	3
IT Elective: Upper Division		3
General Education (Life Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
General Education (Physical Sciences) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3

General Education (Lab Science) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		1
Milestones & Notes: Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
	Hours	16
Spring Semester		
IT 4510	Ethical Hacking & Network Defense	3
ENGL 3010	Business Communication and Ethics	3
IT Elective		3
IT Elective		3
General Education (Exploration) (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)		3
Milestones & Notes: Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
	Hours	15
4th Year		
Fall Semester		
IT 4400	Network Design & Management	3
IT 4500	Information Security	3
General Elective		3
General Elective		3
General Elective		3
Milestones & Notes: Apply for graduation (SPRING DEADLINE NOV. 1, FALL DEADLINE APR. 1). Meet with your program advisor. Maintain minimum prerequisite and program grade requirements.		
	Hours	15
Spring Semester		
IT 4600	Senior Project	3
IT Elective		3
General Elective		3
General Elective		3
General Elective		2
Milestones & Notes: Double check with advisor for final classes. Maintain minimum program grade requirements. Congratulations!		
	Hours	14
	Total Hours	120

Computer and Information Technology Program Learning Outcomes:

At the successful conclusion of this program, students will be able to:

1. Design and create technological solutions that address contemporary real-world problems.
2. Evaluate current techniques, skills, and tools necessary for professional practice.
3. Weigh and apply ethical, legal, and social responsibilities in all aspects of practice.
4. Construct effective solutions in teams to accomplish a common goal.
5. Author effective visual, oral, and written communication for a range of audiences.