

Information Technology - DevOps Emphasis, BS

Program Description

The Bachelor of Science degree in Information Technology (IT) will prepare students for a wide range of job opportunities such as systems analyst, network administrator, systems administrator, and IT administrator. Students will learn to apply their skills to real world problems arising in various settings, as they master new technological techniques. This applied approach will motivate IT majors to develop the skills and knowledge necessary to solve complex organizational problems using technology.

This emphasis focuses on DevOps specialization.

Students will develop the knowledge and skills necessary for immediate employment and/or entrance into graduate school.

Program Curriculum

120 credits

Information Technology with DevOps emphasis Core Requirements

| Code | Title | Hours |
|---------------------------|--|-----------|
| CS 1400 | Fundamentals of Programming | 3 |
| CS 1410 | Object Oriented Programming | 3 |
| CS 2450 | Software Engineering | 3 |
| IT 1100 | Introduction to Unix/Linux | 3 |
| IT 1200 | A+ Computer Hardware/Windows OS | 3 |
| IT 1500 | Cloud Fundamentals | 1 |
| IT 2300 | Database Design & Management | 3 |
| IT 2400 | Intro to Networking | 3 |
| IT 2500 | Cloud Computing | 3 |
| IT 2700 | Information Security | 3 |
| IT 3100 | Systems Design and Administration | 3 |
| IT 3110 | System Automation | 3 |
| IT 3300 | DevOps Virtualization | 3 |
| IT 3150 | Windows Servers | 3 |
| IT 3400 | Intermediate Computer Networking | 3 |
| IT 4200 | DevOps Lifecycle Management | 3 |
| IT 4600 | Senior Capstone | 3 |
| ENGL 3010 | Professional Writing and Business Ethics | 3 |
| MATH 1040 or MATH 1050 | Introduction to Statistics (MA) (Prerequisite: MATH 1010 or equivalent placement score) College Algebra / Pre-Calculus (MA) | 3 |
| Total Hours | | 55 |

DevOPs Emphasis Requirements

| Code | Title | Hours |
|--------------------|-----------------------------|-----------|
| IT 3110 | System Automation | 3 |
| IT 3300 | DevOps Virtualization | 3 |
| IT 4200 | DevOps Lifecycle Management | 3 |
| CS 2450 | Software Engineering | 3 |
| Total Hours | | 12 |

Information Technology Core Electives

| Code | Title | Hours |
|------------------------------------|--|-------|
| Choose 3 of the following courses: | | 9 |
| IT 4100 | Files Systems and Storage Technologies | |
| IT 4310 | Database Administration | |
| IT 4400 | Network Design & Management | |
| IT 4510 | Ethical Hacking & Network Defense | |
| IT 4920R | Internship | |

Information Technology Elective Requirements

| Code | Title | Hours |
|------------------------------------|--|-------|
| Choose 3 of the following courses: | | 9 |
| CS 2420 | Introduction to Algorithms and Data Structures | |
| CS 2810 | Computer Organization and Architecture | |
| CS 3005 | Programming in C++ | |
| ISA 2050 | Management Information Systems | |
| IT 4060 | Big Data Analytics | |
| IT 4070 | Data Visualization and Storytelling | |
| IT 4100 | Files Systems and Storage Technologies | |
| IT 4310 | Database Administration | |
| IT 4400 | Network Design & Management | |
| IT 4510 | Ethical Hacking & Network Defense | |
| IT 4920R | Internship | |
| IT 4990 | Special Topics in Information Technology | |
| SE 3200 | Web Application Development I | |
| SE 3250 | Internet of Things Programming | |
| SE 3400 | Human-Computer Interaction | |
| SE 4200 | Web Application Development II | |

Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at Utah Tech for institutional residency.
4. Maximum 12 upper-division transfer credits may fulfill Utah Tech Information Technology program requirements.
5. Cumulative GPA 2.0 or higher.
6. Grade C or higher in each Core Requirement, Core Elective Requirement, and Elective Requirement course.