

Computer & Information Technology

Smith Computer Center (Classrooms)
Burns North CIT Suite (Faculty Offices)
<http://cit.dixie.edu/>

To find faculty & staff phone numbers and email addresses, please consult the University Directory (<http://www.dixie.edu/directory/directory.php>).

Department Chair

Russ Ross, Ph.D.

Administrative Secretary

TBA

Advisor

Nikki Dang, M.Ed.

Lecturer/Advisor

Carol Stander, MLTID

Dean

Eric Pedersen, Ph.D.

Administrative Assistant

Ruth Bruckert

Program Description

The Computer & Information Technology (CIT) programs at DSU are proud to provide students with the latest equipment and software, as well as a strong faculty who can teach students to use resources well. The CIT programs prepare students for a multitude of computer related careers including UI/UX, app development, systems administration, security and networking, software engineering, and computer science.

The department offers students three Bachelor degrees: Computer Science (CS), Computer & Information Technology (CIT), and Design.

The CS degree is a standalone Bachelor Science degree.

Within the CIT degree, there is a general program as well as the option to focus on one of three areas: Information Technology, Software Development, or Web Design & Development.

The Design degree offers students three emphases under a Bachelor of Science or Bachelor of Arts heading: Graphic Design, Digital Design, or Interaction Design

CIT also coordinates with the Udvar-Hazy School of Business in offering an emphasis within the Bachelor of Science in Business Administration program: Management Information Systems.

Certificates are also available for those interested in verifying specific sets of skills before completing their degree.

The fields housed within the Computer & Information Technology department are diverse, exciting, rapidly changing, and ever expanding. These DSU programs offer students the opportunity to be challenged in small, personalized classes, where they can develop their knowledge and skills to be successful.

What is the Study of CIT?

To compete in a 21st century digital economy, every organization needs knowledgeable, technologically-savvy professionals.

The Dixie State University CIT Department specializes in providing a state-of-the-art education in advanced computer literacy, networking, operating systems, software applications, graphic design, programming, internet and web publishing, e-commerce, and related technology-oriented training.

Meet with an advisor in the department today to learn more about each of our degrees and which would fit your goals best.

Course Prefixes

- CIT, CS, DES, IT, WEB

ACM Club

Dixie State University's Association of Computing Machinery (ACM) Club, also known as the Computer Club, provides computer enthusiasts a place to meet, form friendships, share ideas and play computer games. Within the ACM Club are housed a general computing branch, information security branch, and women in computing branch. Meeting dates and times vary. Contact the advisor for the branch that you are interested in. Don't hesitate to participate in multiple branches!

Computing - Bob Nielson
 Information Security - Jay Sneddon
 Women in Computing - Carol Stander

Be on the lookout for events each semester to participate in including the International Programming Contest in the fall and the ACM Programming Competition in the spring.

Degrees & Certificates

Bachelor's Degrees

- Bachelor of Science in Computer Science (catalog.dixie.edu/programs/computerinformationtechnology/bachelor_of_science_in_computer_science)
- Bachelor of Science in Computer & Information Technology (catalog.dixie.edu/programs/computerinformationtechnology/bachelor_of_science_in_computer_information_technology)
- Bachelor of Science in Computer & Information Technology – Information Technology Emphasis (catalog.dixie.edu/programs/computerinformationtechnology/bachelor_of_science_in_computer_information_technology_information_technology_emphasis)
- Bachelor of Science in Computer & Information Technology – Software Development Emphasis (catalog.dixie.edu/programs/computerinformationtechnology/bachelor_of_science_in_computer_information_technology_computer_science_emphasis)
- Bachelor of Science in Computer & Information Technology – Web Design & Development Emphasis (catalog.dixie.edu/programs/computerinformationtechnology/bachelor_of_science_in_computer_information_technology_web_design_emphasis)
- Bachelor of Arts/Science in Design
- Bachelor of Arts/Science in Integrated Studies - Digital Design Emphasis (catalog.dixie.edu/programs/interdisciplinaryartsandsciences/bachelor_of_sciencebachelor_of_arts_in_integrated_studies_digital_design)
- Bachelor of Arts/Science in Integrated Studies - Information Technology Emphasis (catalog.dixie.edu/programs/interdisciplinaryartsandsciences/bachelor_of_sciencebachelor_of_arts_in_integrated_studies_information_technology_emphasis)
- Bachelor of Arts/Science in Integrated Studies - Software Development Emphasis (catalog.dixie.edu/programs/interdisciplinaryartsandsciences/bachelor_of_sciencebachelor_of_arts_in_integrated_studies_computer_science_emphasis)
- Bachelor of Arts/Science in Integrated Studies - Web Design & Development Emphasis (catalog.dixie.edu/programs/interdisciplinaryartsandsciences/bachelor_of_sciencebachelor_of_arts_in_integrated_studies_web_design_development)

Minors

- Minor in Computer Science (catalog.dixie.edu/programs/minor_in_computer_science)
- Minor in Digital Design (catalog.dixie.edu/programs/minor_in_digital_design)
- Minor in Information Technology (catalog.dixie.edu/programs/minor_in_information_technology)
- Minor in Web Design & Development (catalog.dixie.edu/programs/minor_in_web_design_development)

Certificates

- Visual Technologies Certificate (catalog.dixie.edu/programs/computerinformationtechnology/visual_technologies_certificate)

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 (no emphasis)		
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
DES 1300	Design I	3
IT 1100	Introduction to Unix/Linux	3
MATH 1050	College Algebra / Pre-Calculus (or higher GE MATH course)	4
WEB 1400	Web Design I: Fundamentals	3
Bachelor of Science in Computer & Information Technology - Information Technology Emphasis		
CS 1400	Fundamentals of Programming	3
CS 1410 or MATH 1100	Object Oriented Programming Business Calculus	3
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	3
Bachelor of Science in Computer & Information Technology - Software Development Emphasis		
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
CS 2420	Introduction to Algorithms and Data Structures	3
IT 1100	Introduction to Unix/Linux	3
MATH 1060	Trigonometry (or higher GE MATH course)	3
WEB 1400	Web Design I: Fundamentals	3
Bachelor of Science in Computer & Information Technology - Web Design & Development Emphasis		
CS 1400	Fundamentals of Programming	3
DES 1300	Design I	3
IT 1100	Introduction to Unix/Linux	3
WEB 1400	Web Design I: Fundamentals	3
Bachelor of Science in Computer Science		
CS 1400	Fundamentals of Programming	3
CS 1410	Object Oriented Programming	3
CS 2420	Introduction to Algorithms and Data Structures	3
MATH 1210	Calculus I (or higher GE MATH course)	4

CIT Career Information

Career Strategies

In addition to the required coursework in CIT, students can do the following to enhance their career opportunities:

- Develop strong interpersonal, communication and teamwork skills
- Patience and perseverance are essential for computer science professionals
- Obtain an internship; related experience is valuable
- Expect to work extended and/or irregular hours at times
- Prepare to learn new information on a regular basis through online discussions, classes, conferences, periodicals, and update your skills accordingly
- Obtain vendor-specific or networking certifications to gain a competitive edge for some positions

Career Opportunities *

Careers will vary according to the course of study but can include:

- Network Engineers
- Database Administrators
- Computer Security Specialists
- Web Developers
- Software Engineers
- Computer Security Specialists
- Graphic Designers
- Multimedia Artists
- Animators
- Software Developers

Job Outlook *

The overall employment projections from 2014 to 2024 show CIT will increase by 12%, a significantly faster pace than the average for all occupations.

Salary Range *

The median wage for computer and information technology occupations was \$81,430 in May 2015.

Computer Science Career Information

Career Strategies

In addition to the required coursework in computer science, students can do the following to enhance their career opportunities:

- Develop strong interpersonal, communication and teamwork skills.
- Develop patience and perseverance
- Obtain an internship. Related experience is helpful.
- Prepare to learn new information on a regular basis through online discussions, classes, conferences, periodicals, etc.

Career Opportunities *

The Computer Science degree at Dixie State University is designed to meet the national Accreditation Board for Engineering and Technology (ABET) accreditation standards. The CS degree will also prepare students for advanced degrees.

Demand for computer software engineers will increase as computer networking continues to grow. For example, expanding internet technologies have spurred demand for computer software engineers who can develop Internet, intranet, and World Wide Web applications. Likewise, electronic data-processing systems in business, telecommunications, healthcare, government, and other settings continue to become more sophisticated and complex. Implementing, safeguarding, and updating computer systems and resolving problems will fuel the demand for growing numbers of systems software engineers.

Some of the jobs in this area include:

- Computer Scientists
- Software Engineers
- Computer Programmers
- Computer Security Specialists
- Web Developers
- Software Developers

Job Outlook *

Employment of software developers is projected to grow much faster than the average for all occupations, increasing by 17% from 2014 to 2024. Job prospects will be best for applicants with a bachelor's or higher degree and relevant experience.

Salary Range *

As of May 2015, the median wage for software developers is \$100,690, and that of computer programmers is \$79,530.

* Derived from the Occupational Outlook Handbook, 2015.