

INFORMATION TECHNOLOGY

College of Natural and Behavioral and Sciences
Department of Computer Science
Bachelor of Science
Degree Roadmap

Faculty

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Program Description

Information Technology forms the technological infrastructure of modern commerce. It's the driving force of every industry and permeates everyday life. The ability to combine the power of computing with the management of multimedia information is arguable the key to obtaining ascendancy in any field.

Information Technology is an ever-evolving, expanding field. The Information Technology Program will provide students with the background, knowledge and skills they will need to adapt to the dynamic nature of the marketplace.

The BSIT degree provides a high quality science degree program in information technology that will prepare student for lifelong learning as they pursue professional careers in informational technology and leadership roles in the society in which they serve. It provides our students with a strong foundational base, state-of-the art techniques, methodologies, and tools to specify, design and develop technology-based solutions to complex system problems. This program prepares our students to communicate well, both orally and in writing, on moral and ethical development, in knowledge of the liberal arts, and on commitment to services to others. IT provides opportunities for students to contribute to the body of knowledge that serves the profession, by engaging in activities which support their interest and are in agreement with the goals and objectives of the College, and the university.

Features

The University's location in the South Bay area of greater Los Angeles provides direct access to many major government contractors, manufacturers, and international centers of commerce and finance. This provides excellent opportunities for work-study and early job placement.

Our highly qualified full-time faculty are supplemented by talented and dedicated part-time faculty drawn from local firms and schools. Good teaching and easy on-campus access to professional quality computing systems enhances a degree program that provides both a solid core curriculum and a broad range of electives.

All courses are offered alternatively day and evening so that students may complete their programs by enrolling at either time exclusively.

Graduation with Honors

An undergraduate student may be a candidate for graduation with Honors in Information Technology provided he or she meets the following criteria:

1. A minimum of 36 units in residence at CSU Dominguez Hills at least 24 of which taken in Computer Science major;
2. A minimum GPA of 3.5 in all upper division courses in the Computer Science major completed in residence at CSUDH;
3. Recommendation by Information Technology faculty.

Students who achieve Honors in Information Technology will have the information recorded on their transcripts and diplomas.

Academic Advisement

Faculty guidance in the development of career goals and program planning to achieve those goals is available to all majors.

Preparation

Students entering the Information Technology program should have completed high school mathematics through trigonometry. Remediation is available but will delay the student's progress toward an Information Technology degree.

This is a program that places a premium on the student's initiative and effort.

Career Possibilities

Bachelor of Science in Information Technology is a comprehensive program that is intended to provide students with the technology based skill set required immediately after degree completion to enter the workforce or a graduate program. Feedback and letters of support from members of our Industry Advisory Board indicate the need for professionals with the balance of practical and theoretical knowledge that extends beyond conventional information technology curricula.

Student Organizations

Contact departmental office for membership information, or visit the websites:

Association for Computing Machinery (ACM) ACM@csudh.edu
Institute of Electrical and Electronics Engineers (IEEE) IEEE@csudh.edu
Cyber Security CyberSec@csudh.edu
Computing Alliance of Hispanic-Serving Institutions (CAHSI) CAHSI@csudh.edu

Bachelor of Science in Information Technology

Total Course Requirements for the Bachelor's Degree

See the "Requirements for the Bachelor's Degree (<https://catalog.csudh.edu/general-information/baccalaureate-degrees-undergraduate-studies/>)" in the University Catalog for complete details on general degree requirements. A minimum of 40 units, including those required for the major, must be upper division.

Elective Requirements

Completion of elective courses (beyond the requirements listed below) to reach a total of a minimum of 120.

General Education Requirements (49 units)

See the "General Education (<https://catalog.csudh.edu/general-information/double-counting-general-education-courses/general-education/>)" requirements in the University Catalog or the Class Schedule for the most current information on General Education requirements and course offerings.

Graduation Writing Assessment Requirement

See the "Graduation Writing Assessment Requirement (<https://catalog.csudh.edu/general-information/graduate-writing-examination/>)" in the University Catalog.

Minor Requirements

Single field major, no minor required.

Major Requirements (73 units)

Students entering the Information Technology program must complete the following:

1. Earn an overall grade point average of 2.0 or better in courses taken outside of the department;
2. Earn a grade of "C" or better in each course taken within the department;
3. Students must take capstone course ITC 492 Senior Design (3) at CSUDH.

The following courses, or their approved transfer equivalents, are required of all candidates for this degree.

A. Lower Division Requirements (37 units)

ITC 101 Introduction to Information Technology (3)
CSC 121 Introduction to Computer Science and Programming I (4)
CSC 123 Introduction to Computer Science and Programming II (4)
ITC 251 System Programming in C and Unix (3)
CTC 228 Introduction to Operating Systems and Networks (4)
CSC 255 Dynamic Web Programming (3)
BIO 102 General Biology (3)
BIO 103 General Biology Laboratory (1)
PHY 100 Patterns In Nature (3)
MAT 131 Elementary Statistics and Probability (3)
MAT 281 Discrete Mathematics (3)
Science- Any Physical or Life Science (3)

Any Physical Science with Lab **and/or** any Life Science with lab (10 units total).

B. Upper Division Requirements (36 units)

A minimum of 18 upper division units in the major must be taken in residence at CSU Dominguez Hills.

1. Required Courses (30 units)

CSC 301 Computers And Society (3)
ITC 310 IT Project Management (3)
CSC 311 Data Structures (3)
CTC 316 Operating Systems and Networks Support (3)
CTC 362 Communication Systems Security (3)
CTC 452 Network Security and Hacking Prevention (3)
ITC 453 Database Management Systems (DBMS) (3)
ITC 459 IT Security (3)
ITC 492 Senior Design (3)

2. Electives (6 units)

CSC Courses- Recommended IT Architecture