# INFORMATION TECHNOLOGY, BACHELOR OF SCIENCE

# Requirements

## **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 units.

#### **General Education Requirements (49 units)**

See the "General Education (https://catalog.csudh.edu/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/baccalaureate-degrees-undergraduate-studies/gwar-certifying-courses/)" 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:

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

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

Code	Title	Hours			
Lower Division Requirements					
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 Network	s 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			
Any Physical Science with Lab and/or any Life Science with lab			
Upper Division Requirements <sup>1</sup>			
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	
Complete two CSC Elective Courses - Recommended IT Architecture		6	
Total Hours		80	

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

# 4- Year Roadmap

Course	Title	Hours
First Year		
Fall		
MAT 131	Elementary Statistics and Probability (GE B4)	3
HIS 101	History Of United States (statutory requirement)	3
ITC 101	Introduction to Information Technology	3
GE Area A1 Oral Communication		
GE Area A2 Written Communication		
	Hours	15
Spring		
CSC 121	Introduction to Computer Science and Programming I (see academic advisor for GE Area A3 credit)	4
BIO 102	General Biology (GE B2)	3
BIO 103	General Biology Laboratory (GE B3)	1
POL 101	American Institutions (statutory requirements)	3
GE Area C1 Arts Courses		3
	Hours	14
Second Year		
Fall		
CSC 123	Introduction to Computer Science and Programming II	4
CSC 255	Dynamic Web Programming	3
CSC 281	Discrete Structures	3
GE Area C2 Letters Course		3
	Hours	13
Spring		
ITC 251	System Programming in C and Unix	3
CTC 228	Introduction to Operating Systems and Networks	4
CSC 311	Data Structures	3
	n Individuals, Groups, and Society	3
PHY 100	Patterns In Nature (GE B1)	3
	Hours	16
Third Year Fall		
ENG 350	Advanced Composition (GWAR satisfying course)	3
CSC 301	Computers And Society (GE Area B5)	3
CTC 316	Operating Systems and Networks Support	3
ITC 399	IT Practicum	3

GE Area C1 or C2		3
	Hours	15
Spring		
ITC 310	IT Project Management	3
ITC 453	Database Management Systems (DBMS)	3
GE Area D2 Globa	GE Area D2 Global and Historical Perspectives	
GE Area C3 Integrative Studies in the Humanities		3
Additional PHY or	Life Science Course	3
	Hours	15
Fourth Year		
Fall		
CTC 362	Communication Systems Security	3
CTC 452	Network Security and Hacking Prevention	3
ITC 459	IT Security	3
GE Area E Lifelong Learning and Self-Development		3
GE Area D3 Integrative Studies in the Social Sciences		3
Elective to meet 120 units		3
	Hours	18
Spring		
ITC 492	Senior Design	3
CSC or ITC Electiv	3	
GE Area F Ethnic	Studies	3
GE Area A3 Logic	3	
CSC or ITC Electiv	3	
	Hours	15
	Total Hours	121

# 2-Year Roadmap

Course	Title	Hours
First Year		
Fall		
CSC 301	Computers And Society (GE B5)	3
CSC 311	Data Structures	3
CTC 316	Operating Systems and Networks Support	3
ITC 399	IT Practicum	3
Elective to meet 120 units	3	
	Hours	15
Spring		
ITC 310	IT Project Management	3
ITC 453	Database Management Systems (DBMS)	3
ENG 350	Advanced Composition (GWAR satisfying course)	3
Elective to meet 120 units		3
GE Area C3 Integrative Stu	dies in the Humanities	3
	Hours	15
Second Year		
Fall		
CTC 362	Communication Systems Security	3
CTC 452	Network Security and Hacking Prevention	3
ITC 459	IT Security	3
GE Area D3 Integrative Studies in the Social Sciences		
Elective to meet 120 units		3
	Hours	15
Spring		
ITC 492	Senior Design	3
CSC or ITC Upper Division I	3	
CSC or ITC Upper Division Elective 2		3
Elective to meet 120 units	3	
Elective to meet 120 units		3
	Hours	15
	Total Hours	60