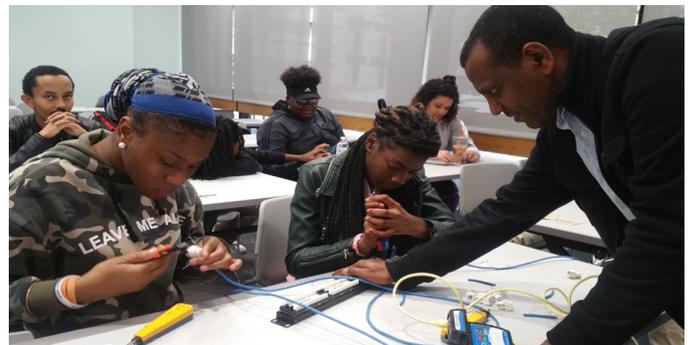


# INFORMATION TECHNOLOGY

UNIVERSITY OF THE  
DISTRICT OF COLUMBIA  
SCHOOL OF ENGINEERING AND APPLIED SCIENCES



## BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

Information Technology has become increasingly essential in almost every industry. IT professionals are needed in a range of small and large businesses and agencies of a variety of sectors, including government, medical, entertainment, manufacturing, and communications. They are responsible for selecting, adapting, maintaining, and deploying appropriate computer systems, networks, databases, operating systems and software for an organization. IT professionals require knowledge of the reliability, security, usability, and effectiveness of hardware and software solutions.

Why study Information Technology? Information Technology is a vital field. IT professionals are high in demand and their salaries are competitive from the start. Companies and organizations are relying more and more on IT as the need for more secure systems increase. IT offers many rewarding career choices ranging from Network Administrator to Chief Information Officer.

The mission of UDC's Bachelor of Science in Information Technology degree program is to prepare nationally and internationally competitive graduates who meet the needs of the current and future technology era.

IT students work with the department's faculty on interesting challenges in various areas spanning databases, networking, cloud computing, networking, web development, and security. We prepare our students to enter the information technology profession, or to proceed to an advanced degree.

### Your total 120 credit-hour program consists of:

Basic Science and Mathematics

General Education (with emphasis on freedom responsibility, and the pursuit of learning)

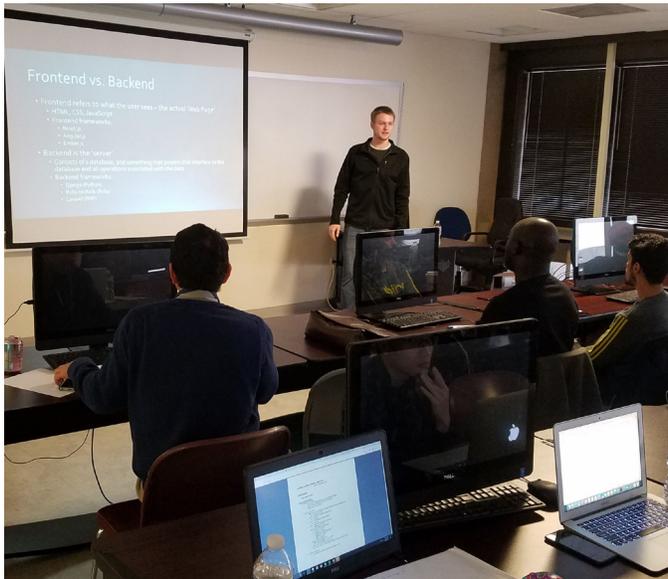
Information Technology Core

Information Technology Electives

Sample Courses Offered: Webpage Development, Information Security, System and Network Administration, Computer Networks, Databases and Digital Forensics

### **WHY A BS IN INFORMATION TECHNOLOGY AT UDC?**

- Student-focused campus mission
- Affordable and accessible
- Covers a wide range of IT topics
- Lower tuition fees compared to other schools
- Average class size is around 20
- Research opportunities for undergraduates
- Scholarship opportunities
- Convenient to Metropolitan DC Area residents



### **What makes UDC's Information Technology program different?**

The Information Technology program at UDC is designed with the success of the individual student in mind. With smaller class sizes, students benefit from a personal teaching environment and individual attention.

### **How will my credits transfer?**

Once you are enrolled, an Information Technology faculty member will evaluate your previous courses and academic record and let you know about transfer credit.

### **May I speak to a current UDC student?**

Absolutely. Contact the undergraduate program director to be connected with a continuing or recently graduated student who will share their experience with you.

*"I couldn't have done it without the great resources and opportunities provided to me at UDC. UDC has been a great place to do undergraduate work and I hope this award is an indicator of that reality.*

*~ NATHAN KEEGAN. A recipient of the Boren Fellowship*

*For more information about BS in Information Technology visit [www.udc.edu/seas](http://www.udc.edu/seas) or contact:*

*Department Chair, Dr. Briana Wellman  
202-274-6695, [briana.wellman@udc.edu](mailto:briana.wellman@udc.edu)*

*Program Director, Dr. Dong Jeong  
202-274-6292, [djeong@udc.edu](mailto:djeong@udc.edu)*

*Department Office, Ms. Sandra Brooks  
202-274-6287, [sbrooks@udc.edu](mailto:sbrooks@udc.edu)*

*CSIT Department's web site: <http://csit.udc.edu>*

## B.S. Information Technology - Degree Completion Guide (Spring 2020 - Current)

The highlighted cells indicate General Education Courses for *B.S. Information Technology*

The minimum credits required for graduation: 120

Year 1			Credits
Fall	IGED 110	Foundation Writing I	3
	IGED 130	Foundation Oral Communication	3
	MATH 116	Finite Mathematics	3
	APCT 115	Foundations of Computing	3
	APCT 110/111	Intro to Programming (Lec+Lab)	3
Sub-total			15
Spring	IGED 111	Foundation Writing II	3
		Natural Science Elective (Lec+Lab)	4
	CMOP 131/132	Computer Networking Fundamentals (Lec+Lab)	4
	APCT 231/233	Computer Science I (Lec+Lab)	4
	Sub-total		

Year 3			Credits
Fall	IGED 280	Discovery Civics	3
	CSCI 306	Computer Ethics and Laws	3
	CSCI 315	Unix and System Programming	3
	CSCI 342	System & Network Administration	3
	CSCI 345	Human Computer Interaction	3
	Sub-total		
Spring	CSCI 343	Database Administration	3
	CSCI 353	Information Security	3
		IT Elective+	3
		IT Elective+	3
		IT Elective+	3
Sub-total			15

Year 2			Credits
Fall	IGED 140	Foundation Ethics	3
	IGED 210	Discovery Writing	3
	MATH 185	Elementary Statistics I	3
	APCT 232/234	Computer Science II (Lec+Lab)	4
	CMOP 235/236	Intro. to WebPage Development and HTML (Lec+Lab)	3
	Sub-total		
Spring	IGED 270	Discovery Diversity	3
	MATH 215	Calculus for Business, Social and Life Sciences	4
	CSCI 308	Advanced Object-Oriented Programming	3
	CMOP 231/232	Wireless Local Area Networks (Lec+Lab)	3
		Natural Science Elective (Lec+Lab)	4
	Sub-total		

Year 4			Credits
Fall	CSCI 498	Senior Project I	3
		IT Elective+	3
Sub-total			15
Spring	CSCI 441	Digital Forensics	3
	CSCI 452	Database Systems Design	3
	CSCI 499	Senior Project II	3
		IT Elective+	3
Sub-total			12

All IT students are allowed to take all BSCS courses as the part of BSIT electives if they satisfy the pre-requisite requirements of the courses. The IT students are also allowed to take 3 courses (9 credits) from a chosen area (Business Management, Multimedia, and Criminal Justice) in consultation with the student's Advisor and Chair.

The following courses are the approved BSIT electives.

Course number	Title	New Credits
APCT 341	Advanced Web Development	3
CSCI 317	Multimedia Programming & Design	3
CSCI 341	Software Engineering	3
CSCI 351	Computer Networks	3
CSCI 352	Network Security	3
CSCI 412	Operating Systems	3
CSCI 415	Computer Organization and Architecture	3
CSCI 453	Secure Software Engineering	3
CSCI 451	Advanced Network Management	3
CSCI 455	Cryptography	3

## ***FACULTY EXPERTISE***

### ***DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY***

#### **Uzma Amir**

Area Robotics, STEM programs

#### **Li Chen, Ph.D.**

Image processing, Object-oriented Programming and Design, Algorithm Design and Complexity, Discrete Geometry and Digital Geometry, Data Science: Theory and Applications

#### **Anteneh Girma, Ph.D.**

Information Security and Assurance, CyberSecurity, CyberSecurity Intelligence, CyberSecurity Governance, Risk Management, and Security Auditing, Cloud Computing and Security, Internet of Things and Security, Artificial Intelligence, Machine Learning, Cryptography, and Data Science

#### **Dong Hyun Jeong, Ph.D.**

Human-computer Interaction, Visual Analytics, Information Visualization, Cloud Computing

#### **Thabet Kacem, Ph.D.**

Cybersecurity, Smart Transportation Systems, Software-defined Radios/Radars, Cyber Physical Systems, Sea Level Rise

#### **Junwhan Kim, Ph.D.**

Distributed Systems, Software and Hardware Transactional Memory, Fault Tolerance, Wireless Networking, Cross-layer Optimization

#### **Lily Liang, Ph.D.**

Digital Image Processing, Artificial Intelligence, Bioinformatics, Data Mining

#### **Timothy Oladunni, Ph.D.**

Data Analysis, Pattern Recognition, Software Engineering, Deep Learning, Business Intelligence, Data Mining

#### **Briana Wellman, Ph.D. (Department Chair)**

Multi-robot System, Educational Robotics, Autonomous Systems

#### **Byunggu Yu, Ph.D.**

Database, Cloud Computing, Big Data, Bigtable, MapReduce, Sensor-Network DB, Information Storage and Retrieval, Spatial Database, Spatio-temporal Database, High-dimensional Database, Indexing, Data Modeling, Operating Systems, Mobile Database, Informatics