

INFORMATION TECHNOLOGY, B.S.

Overview

The B.S. in Information Technology provides a base of knowledge, skills and exposure to industry practices in areas including cybersecurity, product and program support, integrated application development, and enterprise systems & cloud.

The School of Professional Advancement awards the Bachelor of Science in Information Technology degree following the successful completion of 120 credits, including 21 credits in the major and 24 credits in the chosen concentration of study.

Information Technology Program Educational Objectives

After completing the program, graduates should be able to:

1. Contribute to the success of organizations and communities through adopting a lifelong process of research, adaptation, and implementation of technology.
2. Serve as thought leaders and catalysts for change in the IT industry for the betterment of communities and organizations while acting ethically and with integrity.
3. Apply cybersecurity concepts to technology pursuits in order to help secure people's privacy, liberty and better their way of life.

Information Technology Program Learning Objectives

Upon successful completion of the program, students should be able to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.
7. Apply security principles and practices to maintain operations in the presence of risks and threats.

Requirements

All students entering the Information Technology major will take seven (7) foundational technology courses together and then declare a concentration. Each concentration will require seven (7) courses and a program concentration capstone course.

Note: Students may also choose to earn a BS in Information Technology without a concentration by taking the seven (7) core courses, plus any seven (7) CPST courses (level 3000 or above) AND a Capstone course.

Course ID	Title	Credits
Information Technology Core Courses (Required for all concentrations) *		
CPST 1200	Fund of Info Systems & Tech	3
CPST 2200	Application Dev Fundamentals	3
CPST 2300	Database Fundamentals	3
CPST 2500	IT Infrastructure Fundamentals	3
CPST 2600	Networking Fundamentals	3
CPST 2700	Fund of Cybersecurity	3
CPST 3050	Technology & Ethics	3
Concentration Courses		24
Total Credit Hours		45

Integrated Application Development Concentration

Course ID	Title	Credits
CPST 3220	O-O Programming w/ Java	3
CPST 3250	User Interface/Experience Dsgn	3
CPST 4270	Advanced Application Development for Industry	3
CPST 4710	Information Technology Program Capstone	3

Choose Four Electives From

CPST 2400	Webpage Design & Developm	3
CPST 2910	Documentation & Tech Writing	3
CPST 3200	Automation & Bot Development	3
CPST 3230	Application Development In C++	3
CPST 3240	Python Game Development	3
CPST 3300	Mobile Application Development	3
CPST 3310	Rel DB Design & Developmt	3
CPST 3500	IT Project Management	3
CPST 3550	Systems Analysis & Design	3
CPST 4340	Database Administration- SQL	3
CPST 4350	Database Administration-Oracle	3
CPST 4500	System Reqs Devel & Testing	3
CPST 4950	Website Security	3

OR

Any CPST Course (Including Special Topics) with AppDev Hashtag

Enterprise Systems and Cloud Concentration

Course ID	Title	Credits
CPST 3270	Cloud Foundations	3
CPST 4610	Windows Server Administration	3
CPST 4930	Network Security	3
CPST 4710	Information Technology Program Capstone	3

Choose Four Electives From

CPST 3260	Virtualization and Cloud	3
CPST 3280	Cloud Architecture	3
CPST 3290	Linux Admin & Hybrid Cloud	3
CPST 3310	Rel DB Design & Developmt	3
CPST 3610	Internet Server Admin with IIS	3
CPST 3650	Linux Administration & Security	3
CPST 3750	Cyber Defense	3
CPST 4340	Database Administration- SQL	3
CPST 4640	TCP/IP Protocol	3
CPST 4650	Unix System Administration	3
CPST 4670	Identity & Access Management	3
CPST 4750	IP Routing & Switching	3
CPST 4770	Advanced IP Networking	3
CPST 4810	Windows Security	3
CPST 4850	Penetration Testing	3
CPST 4870	Forensics, Investigate & Resp	3
CPST 4950	Website Security	3

OR

Any CPST Course (Including Special Topics) with EntSystemsCloud Hashtag

Cybersecurity Concentration

Course ID	Title	Credits
CPST 4870	Forensics, Investigate & Resp	3
CPST 4610	Windows Server Administration	3
CPST 4930	Network Security	3
CPST 4710	Information Technology Program Capstone	3
Choose Four Electives From		
CPST 3260	Virtualization and Cloud	3
CPST 3270	Cloud Foundations	3
CPST 3310	Rel DB Design & Developmt	3
CPST 3650	Linux Administration & Security	3
CPST 3750	Cyber Defense	3
CPST 3930	Cyber Threats & Cybersecurity	3
CPST 4640	TCP/IP Protocol	3
CPST 4650	Unix System Administration	3
CPST 4670	Identity & Access Management	3
CPST 4750	IP Routing & Switching	3
CPST 4770	Advanced IP Networking	3
CPST 4810	Windows Security	3
CPST 4850	Penetration Testing	3
CPST 4950	Website Security	3
OR		

Any CPST Course (Including Special Topics) with CybSec Hashtag

Product & Program Support Concentration

Course ID	Title	Credits
CPST 3250	User Interface/Experience Dsgn	3
CPST 3500	IT Project Management	3
CPST 3550	Systems Analysis & Design	3
CPST 4710	Information Technology Program Capstone	3
Choose Four Electives From		
CPST 2910	Documentation & Tech Writing	3
CPST 3930	Cyber Threats & Cybersecurity	3
CPST 4101	SCRUM Development Method	3
CPST 4320	Business Intelligence	3
CPST 4500	System Reqs Devel & Testing	3
OR		

Any CPST Course (Including Special Topics) with ProdProgSupport Hashtag

* *Students pursuing the B.S. in Information Technology will be advised to take CPST-1070 – “Discrete Math for IT” which also fulfills the SoPA Core Curriculum Requirement for Quantitative Reasoning*

Contact

For more information, contact the School of Professional Advancement (<https://sopa.tulane.edu/degrees-programs/bachelors-degrees/bachelor-science-information-technology/>).