100% online

ABILENE CHRISTIAN UNIVERSITY

Bachelor of Science in Cybersecurity

COLLEGE OF LEADERSHIP AND PROFESSIONAL STUDIES

100% ONLINE

120 CREDIT HOURS

Admission Requirements:

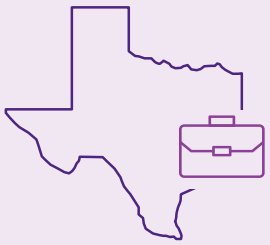
- Complete the online program application accompanied by a non-refundable processing fee.
- Submit official high school with a minimum 2.5 GPA and/or college transcripts with a minimum 2.0 GPA.
- Students are not required to submit ACT or SAT test scores.

Cost:

- Per Credit: $395
- Per Course: $1,185
- Total Tuition: $47,400
- Total Tuition + Fees: $53,600

Timeline: 3.5 Years

Job Outlook in Texas:



179,037 Jobs
in 2025*

+1%
Employment Growth (2025-2026)

$110,700 *per year*
Median Earnings

*Filtered by the proportion of the national workforce in these occupations with a Bachelor's degree. Source Lightcast 2026.

Major Requirements:

Programming

CSO 115: Introduction to Programming Using Scripting
An introduction to computer programming using a scripting language such as Python or PHP, with an emphasis on problem solving and logic. Topics include: variables and constants, arithmetic operations, data input and output, Boolean logic, conditional and iterative program control structures, user-defined functions, simple algorithm design, and debugging strategies.

CSO 116: Scripting for Analytics
A deeper exploration of computer programming using a scripting language such as Python or PHP, with a greater emphasis on algorithm design. Topics include strings, arrays, and other advanced data types, reading and writing files, modules, exception handling, recursion, regular expressions, and complex algorithm design.

Information Technology

ITA 110: IT Fundamentals
Provides an overview to the IT discipline, including computing technology basics, networking and communications, application programming, information and database management systems, and cybersecurity.

ITO 220: Introduction to Databases and Database Management Systems
A survey of the logical and physical organization of data and their importance in computer processing. Introduces data models, relational database design, and associated ideas. Compares modern DBMS software. Examines data as a strategic organizational resource. Students develop the basic SQL scripting skills necessary to create tables, queries, forms, and reports. Provides initial training towards professional database certification.

ITO 221: Fundamentals of Networking and Data Communications
A first course in data communications and networking. Topics include: IP networks and services, comparative network configurations and communications protocols, function and purpose of physical network components, resource sharing, client-server systems, administrative issues and tools, and industry standards. Provides initial training towards professional network certification.

ITO 320: Database Administration
A comprehensive presentation of the concepts and techniques of modern database administration. Topics include: system/software evaluation, selection, installation, operations, and maintenance; capacity planning and re-engineering; and utilities and tools for trouble-shooting, backup/ recovery, and performance monitoring/ tuning. Discusses approaches and standards for organizing and managing the database resources, users, and technology of an enterprise.

ITO 410: Systems Integration and Administration
Study and practice in the integration and administration of computer systems. Topics include: resource planning; hardware evaluation, acquisition, installation, and maintenance; file systems; 855-219-7300 | ACU.EDU system diagnostics and performance tuning; backup/restore processes; integration of various operating platforms and open source technologies; and user and customer support services. Requires scripting and shell programming.

ITC 460: Managing Technical Projects
Students apply knowledge in their major area an develop project management skills through oral and written analysis of cases and applied projects.

ITA 491: Emerging Technologies in Information Technology
Investigation of an Information Technology topic of current interest. Various emerging technologies are surveyed as well as the approaches for adopting these technologies. Students will research an emerging technology, relate it to their area of interest, and propose an adoption and direct application of that technology to solve a current IT problem.

ITA 121: PC Service and Support 1
This course concentrates on the fundamentals of computer hardware. Students will be able to describe the internal components of a computer, assemble a computer system, and troubleshoot using system tools and diagnostic software. Students will also learn to connect to the Internet and share resources in a network environment.

ITA 122: PC Service and Support 2
Provides an in-depth look at advanced computer maintenance concepts and techniques. Topics include PC development techniques, troubleshooting strategies, advancement of technological development and problem-solving strategies.

Mathematics

MATO 131*: Calculus for Application
Introduction to differential and integral calculus of algebraic, exponential, and logarithmic functions. Emphasis on applications.

Or

MATH 185*: Calculus I
Limits, continuity, differential calculus of elementary functions. Applications to curve sketching, optimization, rates of change, and linear approximations. Introduction to antiderivatives and definite integrals.

MATO 377: Statistical Methods I
Measurement concepts and scales, populations versus samples, descriptive statistics, random variables and their properties, sampling processes and distributions, special probability distributions, confidence intervals on means and variances from samples, hypothesis tests, one-way analysis of variance, linear correlation and regression, estimation of proportions, and introduction to contingency tables.

*May be used to satisfy University Requirements.

Cybersecurity

ITO 310: Introduction to Computer and Information Security
A survey of the fundamental concepts of computer and information security, including policies and technologies used to achieve secure networks, systems, computing facilities, and information resources. Topics include common system vulnerabilities and threats; models and mechanisms for mandatory, discretionary, and role-based access controls; authentication technologies; ethical issues; and related ideas. Provides initial training towards professional database certification.

ITA 332: Cloud and Network Defense
In this course students will apply tools and methods to secure organizational data and communication infrastructures. Challenges in providing security and effective defense for cloud, mobile, and remote systems are discussed.

ITA 336: System Forensics
This course is designed to present methods for assessing potential breaches and determining the scope and possible impacts. Methods such as log analysis, file metadata review, chain of custody, and legal processes are presented.

ITA 445: System Vulnerability Testing
This is a hands-on course that provides skills in assessing system vulnerabilities. Processes, tools, and methods for penetration testing are explored.

ITO 415: Networks and Security Administration
Study and practice in administering and securing a multifaceted network and communications infrastructure. Topics include: network standards, protocols, naming systems, configurations, and services; hardware and operating system interoperability; capacity planning and re-engineering; security requirements and procedures; logging and auditing tools; disaster planning; and trouble-shooting and performance tuning. Emphasizes user and client needs.

ITO 473: Cybersecurity Policies, Standards, and Compliance
A practical survey of cybersecurity policy, standards, and compliance issues. Projects and team projects reinforce learning. Students perform risk assessments and create cyber policies.

ITA 475: Risk and Incident Planning and Response
Applies policies, standards, and guidelines in the design and development of Risk Management Plans and Incident Response Plans.

Electives
9 hours of electives.

General Education/University Requirements
54 hours of general education and university requirements are needed to fulfill this degree, including 9-15 hours of Bible courses. Specific courses will be determined based on a student's incoming transfer credits.