

COMPUTER TECHNOLOGY, A.S.

Program Description

The Associate of Science in Computer Technology is a two-year undergraduate program that prepares students for entry-level roles in IT support and technical assistance. The curriculum covers topics in computer hardware and software, networking, troubleshooting, and security. Graduates are qualified to assist users with technical issues, maintain computer systems, and support network operations in various organizations. This degree provides a solid foundation for pursuing further IT certifications or advancing into more specialized tech roles.

Degree Earned

Associate of Science in Computer Technology

Required for Graduation

- Courses
 - Major: 20
- Credits
 - Total: 61-64
- GPA
 - Major: 2.0
 - Cumulative: 2.0

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Progress Chart

Code	Title	Credits
Level One - Core Courses		
<i>Universal Required Courses</i>		
Students must complete the following 4 courses.		
ILO 8.1: Written Communication (https://catalog.lasalle.edu/undergraduate/ilo/)		
ENG 110	College Writing I: Persuasion	3
or ENG 111	Academic Writing & Writing Lab	
ILO 5.1: Information Literacy (https://catalog.lasalle.edu/undergraduate/ilo/)		
ENG 210	College Writing II: Research	3
ILO 1.1: Understanding Diverse Perspectives (https://catalog.lasalle.edu/undergraduate/ilo/)		
FYS 130	First-Year Academic Seminar	3
ILO 2.1: Reflective Thinking and Valuing (https://catalog.lasalle.edu/undergraduate/ilo/)		
REL 100	Religion Matters	3

Distinct Discipline Core Courses

Students must complete 1 course in each of the following ILOs. Each course must be from a different discipline. (A "discipline" is represented by the 3- or 4-letter prefix attached to each course.)

ILO 9.1: Creative and Artistic Expression (https://catalog.lasalle.edu/undergraduate/ilo/)		
Choose course within ILO (https://catalog.lasalle.edu/undergraduate/ilo/)		3
ILO 10.1: Ethical Understanding and Reasoning (https://catalog.lasalle.edu/undergraduate/ilo/)		
Choose course within ILO (https://catalog.lasalle.edu/undergraduate/ilo/)		3
ILO 11.1: Cultural and Global Awareness and Sensitivity (https://catalog.lasalle.edu/undergraduate/ilo/)		
Choose course within ILO (https://catalog.lasalle.edu/undergraduate/ilo/)		3

Major Requirements

CSC 151	Introduction to Computing Using Packages	3
CSC 163	Intro to Computer Program	3
CSC 230	Programming Concepts and User Interfaces	4
CSC 240	Database Management Systems	3
CSIT 220	Data Communication	3
CSIT 320	LANs and Network Administration	3
CSIT 321	Client Support	3
or CSIT 327	Administrative Scripting	

Select two of the following:

MTH 101	College Algebra	3
MTH 119	Precalculus	4
MTH 150	Mathematics: Myths and Realities	3
MTH 120	Calculus I	4
MTH 260	Discrete Structures I	3
MTH 261	Discrete Structures II	3

Electives

Students must complete 3 electives, which need to come from any of the following categories.

Any CSC 300+ course	3
Any CSIT 300+ 3 credit course	3
PHY 201 Computer Electronics	3

In addition to the requirements listed above, students must take enough courses to the fulfill graduation credit requirements for their School and major.

Recommended Course Sequence

The following is a sample course sequence for the required courses. It is possible that the order in which you take the courses will vary due to when certain courses are offered. The typical student should take five courses each semester.

Course	Title	Credits
First Year		
First Semester		
CSC 151	Introduction to Computing Using Packages	3
CSIT 220	Data Communication	3
ENG 110	College Writing I: Persuasion	3
FYS 130	First-Year Academic Seminar	3

MTH 119	Precalculus	4
Credits		16
Second Semester		
MTH 120	Calculus I	4
CSC 163	Intro to Computer Program	3
CSC 240	Database Management Systems	3
REL 100	Religion Matters	3
ILO 9: Choose course within ILO (https://catalog.lasalle.edu/undergraduate/ilo/)		3
Credits		16
Second Year		
First Semester		
MTH 260	Discrete Structures I	3
CSC 230	Programming Concepts and User Interfaces	4
CSIT 320	LANs and Network Administration	3
CSC 200+ elective		3
ENG 210	College Writing II: Research	3
Credits		16
Second Semester		
CSIT 321 or CSIT 327	Client Support or Administrative Scripting	3
CSIT 200+ elective (not CSIT 299)		3
PHY 201	Computer Electronics	3
ILO 10: Choose course within ILO (https://catalog.lasalle.edu/undergraduate/ilo/)		3
ILO 11: Choose course within ILO (https://catalog.lasalle.edu/undergraduate/ilo/)		3
Credits		15
Total Credits		63

Course Descriptions

CSIT 220 Data Communication

This course will address current methods and practices in the use of computer networks to enable communication; physical layers, architectural layers, design, operation, management, and the ISO standards. Local, cloud and wide area networks are examined. Student projects may include introductory LAN design, implementation and administration.

CSIT 320 LANs and Network Administration

This course provides a practical approach to network administration methodology using current technologies; network hardware; Network Operating System installation; account management; file sharing; network printing; protocol and services configuration; client connectivity and troubleshooting; network application support; server maintenance; and cross-platform integration. One hour of lecture and two hours of laboratory are scheduled per week. (offered in alternate years) Prerequisite(s): CSIT 220

CSIT 321 Client Support

Topics in this course include installation, maintenance, and customization of a PC client operating system (OS), additional system and application software and hardware installation. The course will also provide a survey of OS utilities, services, and settings, including command-line instructions, menus, start-up processes, purposes of essential OS files, browser options, the task manager, the registry, firewall, etc. (offered in alternate years) Prerequisite(s): CSIT 220

CSIT 327 Administrative Scripting

Production environments use scripts because of the rapid deployment and their "hands-off" nature, which is lacking in GUIs. The main focus is the use of scripts to automate installation, maintenance, and analysis of operating systems, networks, and applications. This course will examine popular scripting languages that are used in Windows and Linux environments. (offered in alternate years) Prerequisite(s): CSC 230 and CSIT 320

CSIT 330 Computer Forensics

This course focuses on legislation related to digital forensics, the role of a computer forensics examiner, evidence preservation, and computer forensic tools. This course provides a comparative study of legislation related to civil and criminal cases using digital forensics, evidence analysis, chain of custody, and data retrieval from computer hardware and software applications. Students will have hands-on labs examining network intrusion and digital evidence preservation using various computer forensic tools. Prerequisite(s): CSIT 320

CSIT 380 Applied Technology Systems

This course will provide an overview of software systems used in a business environment. The course will discuss the network architecture needed to support these environments, including specific issues related to licensing, metrics, infrastructure, and environmental requirements. (offered in alternate years) Prerequisite(s): CSIT 220 and CSC 240

CSIT 422 Information Security

Topics in this course include basic computer security concepts, terminology, and issues, including network security, Windows security, and Linux security; hardening, TCP/IP, scanning, sniffing, IPSec, public key infrastructure, Kerberos, certificates, cryptography, firewalls, intrusion detection systems, security policies, and processes. (offered in alternate years) Prerequisite(s): CSIT 320 or CSIT 321

CSIT 440 Cloud Computing

This course covers a series of current cloud computing technologies, including technologies for Infrastructure as a Service, Platform as a Service, Software as a Service, and Physical Systems as a Service. For different layers of the cloud technologies, students will work with current technologies to create, deploy, and administer the service. The course will provide a foundation for development and exploration of cloud resources. Prerequisite(s): CSC 230, CSC 240, CSIT 320

PHY 201 Computer Electronics

This course addresses the binary representation of numbers including various types (integer, unsigned and floats) with an emphasis on the finiteness of that representation (range, overflow, etc.) Basic logic gates and their use in the realization of any truth tables (combinatorial logic). Simplification procedures, such as Karnaugh maps. Flip-flops, registers and memory (sequential logic). Specific components such as adders, comparators, multiplexors, counters, buses, etc. Introduction to design and architecture. Prerequisite(s): Departmental Permission

CSC 151 Introduction to Computing Using Packages

This course offers a survey of computers and computer systems as well as problem-solving and computer applications for business and social science and an introduction to a PC-based Graphical User Interface/windowed operating system. Computer packages include a word processor, electronic spreadsheet, and presentation software. Internet use includes electronic mail and the World Wide Web. Restriction(s): Credit will be given for only one of CSC 151, 152, 154, and 155.

Program Contact Information

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