

COMPUTER TECHNOLOGY, A.A.S.

Computer Technology students will explore many different topics relating to computers. The course study includes computer maintenance, local and wide area networks, as well as popular programming languages. The Computer Technology program offers concentrations in Cybersecurity, Networking, and Programming.

The Cybersecurity concentration will provide students with the concepts and skills of the fast growing field of cybersecurity, including security of systems and infrastructure in business and industry. Students will learn how to protect networks and defend information systems from attack.

The Network coursework focuses on elective courses in administration of both Microsoft and UNIX based operating systems. PC repair and wide area network courses are also examined. Students gain experience in Visual Basic and internet programming as well as today's popular desktop applications.

The Programming concentration includes elective courses in Visual Basic, C++, Java and database platforms. Students will also gain knowledge in the use of computer operating systems, applications and network maintenance.

To complete the student's preparation for entry-level positions, some general studies courses are also required.

Requirements

Courses	Course Title	Credit Hours
General Education		
ENG 101	English Composition I	3
ENG 102	English Composition II	3
or ENG 165	Professional Communications	
MAT 155	Contemporary Mathematics	3
	Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)	3
	Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)	3
	Subtotal	15
Required Core Subject Areas		
CPT 207	Complex Computer Applications	3
CPT 232	C++ Programming I	3
CPT 242	Database	3
CPT 247	UNIX Operating System	3
CPT 257	Operating Systems	3
CPT 264	Systems and Procedures	3
	Subtotal	18
Other Courses Required for Graduation		
COL 103	College Skills	3
CPT 209	Computer Systems Management	3

CPT 267	Technical Support Concepts	3
CPT 282	Information Systems Security	3
IST 220	Data Communications	3
	Subtotal	15

Select a Concentration option below **18**

Cybersecurity - CTC3		
IST 256	LAN Desktop Technologies	
IST 257	LAN Network Server Technologies	
IST 268	Computer Forensics	
IST 269	Digital Forensics	
IST 293	IT and Data Assurance I	
IST 294	IT and Data Assurance II	

Network - CTN3		
IST 150	Project Management Essentials for IT Professionals	
IST 241	Network Architecture I	
IST 253	LAN Service and Support	
IST 256	LAN Desktop Technologies	
IST 257	LAN Network Server Technologies	
IST 270	Client/Server Systems	

Programming - CTP3		
CPT 186	Visual Basic.NET 1	
CPT 188	Mobile App Development	
CPT 236	Introduction to Java Programming	
CPT 237	Advanced JAVA Programming	
CPT 286	Visual Basic.NET II	
IST 226	Internet Programming	

Total Hours **66**

Graduation Plans

Computer Technology - Cybersecurity Concentration

Fall Start

Course	Title	Hours
First Year		
Fall Semester		
COL 103	College Skills	3
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
ENG 101	English Composition I	3
IST 220	Data Communications	3
	Hours	15

Spring Semester		
CPT 207	Complex Computer Applications	3
CPT 242	Database	3
CPT 267	Technical Support Concepts	3
ENG 102	English Composition II	3

MAT 155	Contemporary Mathematics	3
Hours		15
Summer Semester		
CPT 232	C++ Programming I	3
CPT 247	UNIX Operating System	3
CPT 282	Information Systems Security	3
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Second Year		
Fall Semester		
IST 256	LAN Desktop Technologies	3
IST 257	LAN Network Server Technologies	3
IST 293	IT and Data Assurance I	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Spring Semester		
CPT 264	Systems and Procedures	3
IST 268	Computer Forensics	3
IST 269	Digital Forensics	3
IST 294	IT and Data Assurance II	3
Hours		12
Total Hours		66

Spring Start

Course	Title	Hours
First Year		
Spring Semester		
COL 103	College Skills	3
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
ENG 101	English Composition I	3
IST 220	Data Communications	3
Hours		15
Summer Semester		
CPT 207	Complex Computer Applications	3
CPT 282	Information Systems Security	3
ENG 102	English Composition II	3
MAT 155	Contemporary Mathematics	3
Hours		12
Fall Semester		
CPT 232	C++ Programming I	3
IST 256	LAN Desktop Technologies	3
IST 257	LAN Network Server Technologies	3
IST 293	IT and Data Assurance I	3
Hours		12

Second Year

Spring Semester		
IST 268	Computer Forensics	3
IST 269	Digital Forensics	3
IST 294	IT and Data Assurance II	3
CPT 242	Database	3
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		15
Summer Semester		
CPT 247	UNIX Operating System	3
CPT 264	Systems and Procedures	3
CPT 267	Technical Support Concepts	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Total Hours		66

Summer Start

Course	Title	Hours
First Year		
Summer Semester		
COL 103	College Skills	3
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
Hours		15
Fall Semester		
ENG 101	English Composition I	3
IST 256	LAN Desktop Technologies	3
IST 257	LAN Network Server Technologies	3
IST 293	IT and Data Assurance I	3
Hours		12
Spring Semester		
CPT 207	Complex Computer Applications	3
CPT 267	Technical Support Concepts	3
IST 268	Computer Forensics	3
IST 269	Digital Forensics	3
IST 294	IT and Data Assurance II	3
Hours		15
Second Year		
Summer Semester		
CPT 232	C++ Programming I	3
CPT 242	Database	3
CPT 264	Systems and Procedures	3
ENG 102	English Composition II	3
Hours		12


Fall Semester

CPT 247	UNIX Operating System	3
CPT 282	Information Systems Security	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		
Hours		12
Total Hours		66

Computer Technology - Networking Concentration

Fall Start

Course	Title	Hours
First Year		
Fall Semester		
COL 103	College Skills	3
ENG 101	English Composition I	3
IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
Hours		12

Spring Semester

CPT 207	Complex Computer Applications	3
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
IST 150	Project Management Essentials for IT Professionals	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		
Hours		15

Summer Semester

CPT 232	C++ Programming I	3
CPT 247	UNIX Operating System	3
CPT 267	Technical Support Concepts	3
CPT 282	Information Systems Security	3
Hours		12

Second Year
Fall Semester

ENG 102	English Composition II	3
IST 253	LAN Service and Support	3
IST 256	LAN Desktop Technologies	3
IST 257	LAN Network Server Technologies	3
Hours		12

Spring Semester

CPT 242	Database	3
CPT 264	Systems and Procedures	3
IST 241	Network Architecture I	3
IST 270	Client/Server Systems	3

Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)	3
Hours	15
Total Hours	66

Spring Start

Course	Title	Hours
First Year		
Spring Semester		
COL 103	College Skills	3
ENG 101	English Composition I	3
IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
Hours		12

Summer Semester

CPT 207	Complex Computer Applications	3
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
Hours		9

Fall Semester

CPT 247	UNIX Operating System	3
IST 150	Project Management Essentials for IT Professionals	3
IST 256	LAN Desktop Technologies	3
IST 257	LAN Network Server Technologies	3
Hours		12

Second Year
Spring Semester

CPT 242	Database	3
CPT 267	Technical Support Concepts	3
IST 241	Network Architecture I	3
IST 270	Client/Server Systems	3
Hours		12

Summer Semester

CPT 264	Systems and Procedures	3
ENG 102	English Composition II	3
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		
Hours		9

Fall Semester

CPT 232	C++ Programming I	3
CPT 282	Information Systems Security	3
IST 253	LAN Service and Support	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		
Hours		12
Total Hours		66

Summer Start

Course	Title	Hours
First Year		
Summer Semester		
COL 103	College Skills	3
CPT 257	Operating Systems	3
IST 220	Data Communications	3
Hours		9
Fall Semester		
CPT 207	Complex Computer Applications	3
CPT 209	Computer Systems Management	3
ENG 101	English Composition I	3
IST 253	LAN Service and Support	3
Hours		12
Spring Semester		
CPT 232	C++ Programming I	3
CPT 242	Database	3
MAT 155	Contemporary Mathematics	3
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Second Year		
Summer Semester		
CPT 247	UNIX Operating System	3
CPT 267	Technical Support Concepts	3
CPT 282	Information Systems Security	3
Hours		9
Fall Semester		
ENG 102	English Composition II	3
IST 256	LAN Desktop Technologies	3
IST 257	LAN Network Server Technologies	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Spring Semester		
CPT 264	Systems and Procedures	3
IST 150	Project Management Essentials for IT Professionals	3
IST 241	Network Architecture I	3
IST 270	Client/Server Systems	3
Hours		12
Total Hours		66

Computer Technology - Programming Concentration

Fall Start

Course	Title	Hours
First Year		
Fall Semester		
COL 103	College Skills	3
CPT 207	Complex Computer Applications	3
ENG 101	English Composition I	3
MAT 155	Contemporary Mathematics	3
Hours		12
Spring Semester		
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
IST 220	Data Communications	3
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Summer Semester		
CPT 186	Visual Basic.NET 1	3
CPT 242	Database	3
CPT 247	UNIX Operating System	3
CPT 282	Information Systems Security	3
Hours		12
Second Year		
Fall Semester		
CPT 232	C++ Programming I	3
CPT 286	Visual Basic.NET II	3
ENG 102	English Composition II	3
IST 226	Internet Programming	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		15
Spring Semester		
CPT 188	Mobile App Development	3
CPT 236	Introduction to Java Programming	3
CPT 237	Advanced JAVA Programming	3
CPT 264	Systems and Procedures	3
CPT 267	Technical Support Concepts	3
Hours		15
Total Hours		66

Spring Start

Course	Title	Hours
First Year		
Spring Semester		
COL 103	College Skills	3
CPT 257	Operating Systems	3

IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
Hours		12
Summer Semester		
CPT 186	Visual Basic.NET 1	3
CPT 207	Complex Computer Applications	3
ENG 101	English Composition I	3
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Fall Semester		
CPT 209	Computer Systems Management	3
CPT 232	C++ Programming I	3
CPT 247	UNIX Operating System	3
CPT 286	Visual Basic.NET II	3
Hours		12
Second Year		
Spring Semester		
CPT 188	Mobile App Development	3
CPT 236	Introduction to Java Programming	3
CPT 237	Advanced JAVA Programming	3
CPT 242	Database	3
CPT 267	Technical Support Concepts	3
Hours		15
Summer Semester		
CPT 264	Systems and Procedures	3
CPT 282	Information Systems Security	3
Hours		6
Fall Semester		
IST 226	Internet Programming	3
ENG 102	English Composition II	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		9
Total Hours		66

Summer Start

Course	Title	Hours
First Year		
Summer Semester		
COL 103	College Skills	3
CPT 257	Operating Systems	3
IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
Hours		12
Fall Semester		
CPT 207	Complex Computer Applications	3
CPT 282	Information Systems Security	3
ENG 101	English Composition I	3

Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Spring Semester		
CPT 186	Visual Basic.NET 1	3
CPT 209	Computer Systems Management	3
CPT 242	Database	3
Elective Behavioral Science (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		12
Second Year		
Summer Semester		
CPT 247	UNIX Operating System	3
CPT 267	Technical Support Concepts	3
Hours		6
Fall Semester		
CPT 232	C++ Programming I	3
CPT 286	Visual Basic.NET II	3
ENG 102	English Composition II	3
IST 226	Internet Programming	3
Hours		12
Spring Semester		
CPT 188	Mobile App Development	3
CPT 236	Introduction to Java Programming	3
CPT 237	Advanced JAVA Programming	3
CPT 264	Systems and Procedures	3
Hours		12
Total Hours		66

Application and Advising

If you are ready to start your education, there are a few simple steps involved in enrolling at Piedmont Technical College.

Get Started Today (<https://www.ptc.edu/admissions/new-students/>)

Advising Information

The following information provides a guide for advisors who are helping students enroll in this program.

Program Notes

Students may start this program in any term, and this program can be completed on a part-time or full-time basis. Program courses are offered during the day and night for all concentrations. Most courses are offered online.

Students may only choose one concentration at a time: Cybersecurity, Networking, or Programming. Other concentrations may be completed subsequently, if desired.

Notes About Individual Classes

College policy states that computer coursework is valid for eight years.

Program Student Learning Outcomes

Purpose Statement

The Computer Technology program prepares students for a variety of positions within the technology field. Computer Technology students will explore many different topics relating to computers. The course study includes computer maintenance, local and wide area networks, as well as popular programming languages. There are 3 A.A.S. areas of concentration: Programming, Network, and Cybersecurity. Certificates include PC Technician, Cybersecurity, and Certified IT professional.

Program Student Learning Outcomes:

1. Demonstrate the ability to use logical design techniques in creating programs and systems.
2. Recognize and describe the personal computer hardware components.
3. Install, configure, and upgrade personal computer operating systems.
4. Apply basic computer literacy concepts.
5. Plan, design, and construct a working computer network including appropriate Local Area Network (LAN) and Wide Area Network (WAN) connections and protocols.
6. Demonstrate the ability to organize data using current computer technology.
7. Analyze and resolve security issues in networks and computer systems to secure an IT infrastructure.
8. Evaluate and communicate the human role in security systems with an emphasis on ethics, social engineering vulnerabilities, and training.
9. Interpret and forensically investigate security incidents.