

COMPUTER TECHNOLOGY, PROGRAMMING CONCENTRATION, A.A.S. - CTP3

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 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 Courses		
ENG 101	English Composition I	3
ENG 102	English Composition II	3
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 186	Visual Basic.NET 1	3
CPT 207	Complex Computer Applications	3
CPT 242	Database	3
CPT 257	Operating Systems	3
CPT 264	Systems and Procedures	3
CPT 267	Technical Support Concepts	3
	Subtotal	18
Other Courses Required for Graduation		
CPT 188	Mobile App Development	3
CPT 209	Computer Systems Management	3
CPT 232	C++ Programming I	3
CPT 236	Introduction to Java Programming	3
CPT 237	Advanced JAVA Programming	3
CPT 247	UNIX Operating System	3
CPT 282	Information Systems Security	3
CPT 286	Visual Basic.NET II	3
IST 220	Data Communications	3
IST 226	Internet Programming	3

Subtotal	30
Total Hours	63

Graduation Plan

Fall Start

Course	Title	Hours
First Year		
Fall Semester		
ENG 101	English Composition I	3
IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
	Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)	3
	Hours	12

Spring Semester

CPT 207	Complex Computer Applications	3
CPT 209	Computer Systems Management	3
CPT 257	Operating Systems	3
	Elective Behavioral Science (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
	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
CPT 267	Technical Support Concepts	3
	Hours	15
	Total Hours	63

Spring Start

Course	Title	Hours
First Year		
Spring Semester		
CPT 257	Operating Systems	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
Elective Humanities/Fine Arts (https://catalog.ptc.edu/student-handbook/advising-registration/general-education-courses/)		3
Hours		6

Fall Semester

CPT 186	Visual Basic.NET 1	3
CPT 209	Computer Systems Management	3
CPT 232	C++ Programming I	3
CPT 247	UNIX Operating System	3
CPT 282	Information Systems Security	3
Hours		15

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
Hours		12

Summer Semester

CPT 264	Systems and Procedures	3
CPT 267	Technical Support Concepts	3
Hours		6

Fall Semester

CPT 286	Visual Basic.NET II	3
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		12

Total Hours 63

Summer Start

Course	Title	Hours
First Year		
Summer Semester		
CPT 257	Operating Systems	3
IST 220	Data Communications	3
MAT 155	Contemporary Mathematics	3
Hours		9
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 63

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. Most courses are offered online.

Program courses are offered during the day and night for all concentrations.

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

Notes About Individual Classes

The first English required for this program is ENG 101. Students will follow this progression, with their starting point being determined by

their placement test scores: ENG 032/012 and/or RDG 032/012 (or RWR 032/012) > ENG 100 and/or RDG 100 (or RWR 100) > ENG 101.

The math required for this program is MAT 155. Students will follow this progression, with their starting point being determined by their placement test scores: MAT 032/012 > MAT 155.

If students need developmental or transitional classes, they should be taken first.

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.