

# 2020-2021 TTC Catalog - Computer Technology (CPT)

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## CPT 001 - Computer Technology Non-Equivalent

**Lec:** 0 **Lab:** 0 **Credit:** \*

Indicates credit given for computer course work transferred from another college for which there is no equivalent course at TTC. \*Hours vary.

**Division:** Business Technology

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## CPT 102 - Basic Computer Concepts

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### Course Offered

Fall  
Spring  
Summer

This course includes the basic use of a computer with an overview of computer terminology and provides a basic foundation in software applications. This course is required for Computer Technology and Network Systems Management majors and is open to any student who desires a more comprehensive computer literacy course.

### Prerequisite

MAT 032

**Grade Type:** Letter Grade

**Division:** Business Technology

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## CPT 114 - Computers and Programming

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### Course Offered

Fall  
Spring  
Summer

This course introduces computer concepts and programming. Topics include basic concepts of computer architecture, files, memory and input/output devices.

Programming is done in a modern high-level language. The course includes understanding how computer programs work and the role of the programmer in a business environment. The course starts with assembly language, then scripting language, then finishes with object-oriented programming. No previous programming knowledge is needed.

**Prerequisite**

MAT 032

**Grade Type:** Letter Grade

**Restrictions:** Restrictions apply for Programming majors. See advisor.

**Division:** Business Technology

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## **CPT 162 - Introduction to Web Page Publishing**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

Summer

This course is a study of the fundamentals of web page design and implementation.

**Prerequisite**

MAT 032

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 167 - Introduction to Programming Logic**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

Summer

This course introduces foundation concepts in structured programming. Problem solving and algorithm development through pseudo code and flowcharting is emphasized. Solutions are developed using the basic control structures of sequential, decision and iteration.

**Prerequisite**

MAT 101

**Grade Type:** Letter Grade  
**Division:** Business Technology

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## **CPT 172 - Microcomputer Database**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course introduces microcomputer database concepts, including generating reports from databases and creating, maintaining and modifying databases using Microsoft Access.

### **Prerequisite**

MAT 032

**Grade Type:** Letter Grade  
**Division:** Business Technology

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## **CPT 174 - Microcomputer Spreadsheets**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course introduces the use of spreadsheet software on the microcomputer. Topics include creating, editing, using formulas, using functions and producing graphs using Microsoft Excel.

### **Prerequisite**

MAT 032

**Grade Type:** Letter Grade  
**Division:** Business Technology

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## **CPT 179 - Microcomputer Word Processing**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Spring

Summer

This course introduces microcomputer word processing. Topics include creating, editing, formatting and printing documents using Microsoft Word.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 180 - Shell Scripting**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall

Spring

Summer

This course is a study of shell scripting and emphasizes the designing, coding, and testing of scripts. This course will cover shell scripting from both the command line and the Graphical User Interface.

### **Prerequisite**

MAT 032

and

CPT 114

or

CPT 167

or

IST 165

or

IST 190

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 187 - Object-Oriented Logic and Design**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall

Spring

Summer

This is a study in the planning and implementation of object-oriented programs.

**Prerequisite**

CPT 167

with a minimum grade of C

**Grade Type:** Letter Grade

**Division:** Business Technology

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**CPT 202 - SQL Programming I**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

Summer

This course is an introduction to the writing of basic Structured Query Language (SQL) used in creating tables, inserting data, retrieving data, and manipulating data from database.

**Prerequisite**

CPT 242

**Grade Type:** Letter Grade

**Division:** Business Technology

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**CPT 208 - Special Topics in Computer Technology**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Spring

This course focuses on changes in computer technology.

Departmental Approval

**Grade Type:** Letter Grade

**Division:** Business Technology

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**CPT 209 - Computer Systems Management**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring  
Summer

This course examines the methods and procedures used in maintaining microcomputer systems. Topics include hardware and software installation, configuration, operations and troubleshooting. This course examines the interaction of people, systems and computers. Strategic management issues unique to the information technology environment are discussed. Specialities include remote support technician, help desk technician, call center technician specialist, representative, depot technician and bench technician. Emphasis will be placed on computer design, operating systems, internetworking of devices and general information security concepts. This course will cover learning objectives associated with the CompTIA A+ certification exam. Emphasis will be placed on individual hardware components, BIOS, firmware, troubleshooting computer design, operating systems, internetworking of devices and general information security concepts.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 210 - Computer Resource Management**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course examines the interaction of people, systems and computers. Strategic management issues unique to the information technology environment are discussed. This course will cover learning objectives associated with CompTIA A+ core certification test. Specialties include remote support technician, help desk technician, call center technician specialist, representative, depot technician and bench technician. Emphasis will be placed on computer design, operating systems, internetworking of devices and general information security concepts.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 237 - Advanced Java Programming**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring

This course is a study of advanced topics of the Java programming language by building on a basic knowledge of the Java language. Topics covered will include multi-threading, swing classes, swing event models, advanced layout managers, the JavaBean component model, network programming and server-side programming.

**Prerequisite**

CPT 187

with a minimum grade of C

**Grade Type:** Letter Grade

**Division:** Business Technology

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**CPT 238 - Internet Scripting**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

This course is a study of Internet programming including the syntax of scripting languages and Internet programming concepts and examines topics related to client-side scripting language programming as well as introducing topics related to server-side scripting.

**Prerequisite**

IST 239

**Grade Type:** Letter Grade

**Division:** Business Technology

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**CPT 242 - Database**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

**Course Offered**

Fall

Spring

Summer

This course introduces database models and the fundamentals of database design. Topics include database structure, database processing and application programs that access a database. Upon completion of this course the student will be able to 1) demonstrate the fundamental skills needed to successfully design and implement a database, 2) demonstrate a thorough understanding of database concepts and technologies, and 3) be able to use and understand SQL commands.

**Grade Type:** Letter Grade  
**Division:** Business Technology

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## **CPT 244 - Data Structures**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Spring

This course examines data structures widely used in programming. Topics include linked lists, stacks, queues, trees, and sorting and searching techniques. Students use C++ to develop ideas about multidimensional tables of objects, variable record length files, pointers and complex programs that reuse functions.

### **Prerequisite**

CPT 237

with a minimum grade of C

**Grade Type:** Letter Grade  
**Division:** Business Technology

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## **CPT 262 - Advanced Web Page Publishing**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring

This course is a study of advanced techniques in web page design and implementation.

### **Prerequisite**

CPT 162

or

ARV 227

and

CPT 114

or

### **Corequisite**

CPT 167

**Grade Type:** Letter Grade  
**Division:** Business Technology

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## **CPT 264 - Systems and Procedures**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers system analysis, design, development and implementation.

### **Prerequisite**

CPT 114

or

CPT 167

and

CPT 162

and

CPT 242

and

IST 166

and

ENG 101

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 270 - Advanced Microcomputer Applications**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course emphasizes the integration of popular microcomputer software packages using advanced concepts in microcomputer applications software.

### **Prerequisite**

CPT 174

and

CPT 179

and

CPT 290

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 275 - Computer Technology Senior Project**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall

Spring

This course includes the design, development, testing, and implementation of an instructor approved project. Students will work in teams to design and develop a project that incorporates the knowledge they have gained at TTC. Depending on the project, the areas of knowledge may include project management, web development, database design and implementation, file processing, backend server code, scripting and user interface creation.

### **Prerequisite**

ENG 101

and

CPT 202

and

IST 239

and

CPT 187

and

CPT 238

or

CPT 283

or

IST 235

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 282 - Information Systems Security**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course is the study of the protection of information and equipment in computer systems. Topics include all aspects of systems protection, including physical security, hardware, software and communications security. Students will learn about risk assessment, business continuity planning, privacy and regulatory compliance. Addresses technical, legal and ethical issues.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 283 - PHP Programming I**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring

This course is an introduction to the PHP programming language and will cover topics related to the syntax of PHP language and how PHP can be used to design and develop dynamic, database-driven web pages.

### **Prerequisite**

CPT 162

and

CPT 114

or

### **Corequisite**

CPT 167

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 290 - Microcomputer Multimedia Concepts and Applications**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Fall  
Spring  
Summer

This course will cover introductory microcomputer multimedia concepts and applications. The course will utilize text, graphics, animation, sound, video, and various multimedia applications in the design, development and creation of multimedia presentations.

**Grade Type:** Letter Grade

**Division:** Business Technology

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## **CPT 297 - Big Data Analytics**

**Lec:** 3.0 **Lab:** 0 **Credit:** 3.0

### **Course Offered**

Spring

This course introduces big data concepts and the fundamentals of providing efficient analytics for extremely large datasets.

**Grade Type:** Letter Grade

**Division:** Business Technology

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