

# IT - Information Technology

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## Courses

### IT 100 Computer Programming Foundations

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on fundamental concepts related to computer programming. Topics include: problem solving and developmental tools, design techniques such as flow charting and pseudo coding, and testing techniques used in programming.

Prerequisites: Placement into ENG 101A

### IT 101 Programming 1

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

An introduction to software development. Topics include: application design methods, application testing methods, the sequential structure of programming, the conditional structure of programming, variables, and modular programming concepts using procedures and functions.

Prerequisites: Placement into ENG 101A MAT 093 or MAT 131A or appropriate Math placement

### IT 102 Programming 2

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 101. Topics include: the iterative programming structure, database programming, array processing, and string manipulation techniques.

Prerequisites: IT 101 and IT 111 (minimum grade C for both)

### IT 103 .NET Programming 3

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 102. Topics include: creating, debugging, and maintaining web-based database applications using the .NET framework.

Prerequisites: IT 102 and IT 111

### IT 105 Information Technology Concepts

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on information technology fundamentals. Topics include: the internet, software, hardware, input/output (I/O) and storage, operating systems, communications and networks, database management, security, system development, programming, enterprise computing, and numbering systems. The course is delivered through online instruction only.

Prerequisites: FYE 120 or placement into ENG 101 MAT 093 or MAT 105A or appropriate Math placement

### IT 110 HTML with CSS and JavaScript

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on internet programming using HTML, CSS, and JavaScript. Topics include: HTML commands, cascading style sheets, JavaScript commands, web applications (apps), and dynamic web pages.

Prerequisites: None

### IT 111 Database Design and SQL 1

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on fundamentals of relational database design and implementation using Microsoft SQL Server. Topics include: SQL Enterprise Manager, fundamentals of database design and normalization, data import and export, Structured Query Language (SQL), indexes and keys, views, and stored procedures.

Prerequisites: ENG 085 or appropriate placement MAT 093 or appropriate placement

### IT 112 Database Design and SQL 2

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 111. Topics include: advanced stored procedures using transact SQL, user defined functions, triggers, user defined data types, full text searching, replication, database maintenance plans, and designing data models from abstract requirements.

Prerequisites: IT 111 (minimum grade C)

### IT 115 Operating Systems Administration 1

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on the Windows operating system used on PCs. Topics include Windows utilization and management, utilities, managing disks, disaster recovery, troubleshooting, user management, productivity tools, and performance issues. This course prepares students for a Microsoft Certification exam.

Prerequisites: FYE 120 or placement into ENG 101

### IT 116 Operating Systems Administration 2

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 115. Topics include: managing software problems; managing virtualization; cloud computing; and client configuration, development, deployment, and security. This course prepares students for a CompTIA Cloud+ Certification exam.

Prerequisites: IT 115 (minimum grade C)

### IT 117 Web Application Development 1

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on fundamentals of web-based application development. Topics include: current front-end and back-end technologies used to develop business-related applications, and understanding infrastructure to support application development.

Prerequisites: IT 102 and CPDM 120 (minimum grade C for both)

### IT 118 Web Application Development 2

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT-117. Topics include: using current front-end and back-end technologies to develop business-related applications.

Prerequisites: IT 117

### IT 140 PHP and MySQL

**4 Credits. 3 Lecture Hours. 3 Lab Hours.**

A course in PHP web programming with a MySQL database. Topics include: PHP language, syntax, variables, and forms; MySQL database design; connecting to a MySQL database using PHP; inserting, editing, and deleting MySQL data using PHP; and building dynamic web pages using PHP and MySQL.

Prerequisites: IT 101 and IT 110

### IT 150 Logistics and Distribution Technology

**3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on technologies and software used in supply chain management for freight, air, and maritime logistics operations. Topics include: barcodes, radio-frequency identification (RFID), Wi-Fi tags, logistics and inventory software, high frequency tracking, and passive/active tracking.

Prerequisites: None

### IT 161 Java Programming 1

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on fundamentals of the Java programming language. Topics include: data types, variables, basic command line input/output, decisions, loops, procedures, string manipulation, arrays, object-oriented development, event programming, and database programming.

Prerequisites: CPDM 120 and IT 102 (minimum grade C for both)

**IT 162 Java Programming 2**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 161. Topics include: Java Server Pages (JSP) and complex database applications using Java and JSP.

Prerequisites: IT 161

**IT 212 Business Intelligence, Data Warehousing, and Reporting**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on concepts, technologies, and techniques used to effectively consolidate, arrange, and analyze large amounts of data. Topics include: decision support systems, data mining, and how to derive business value from large amounts of data.

Prerequisites: IT 112

**IT 215 Scripting**

**3 Credits. 2 Lecture Hours. 2 Lab Hours.**

A course on task automation and configuration management using Python programming language. Topics include: modifying existing Python scripts, and creating new scripts to automate common tasks. The course is delivered through online instruction only.

Prerequisites: NETA 155

**IT 218 Web Application Development 2**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 117. Topics include advanced front-end and back-end processing to develop advanced web-based applications.

Prerequisites: IT 117

**IT 220 Emerging Topics in Computer Software Development**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on current topics related to Computer Software Development such as data reporting, XML, and other new concerns.

Prerequisites: IT 101, IT 110, IT 111

**IT 262 Java Programming 2**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A continuation of IT 161, with focus on completing complex projects using Java and associated technologies.

Prerequisites: IT 161