

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** CTEC 104

**Credit Hours:** 3-3-0

**Course Title:** Introduction to Scripting

**Course Prerequisites:** CTEC 102

**Textbook(s):** Powershell for Sysadmins. Bertram, Adam; No-Starch Press: ISBN: 9781593279189 AND Shell Scripting. Cannon, Jason. ISBN: 9781517380434.

**Course Description:** This course introduces students to scripting using PowerShell. Students will learn about concepts including execution permissions, commands, pipelining, variables, arrays, split and join operators, program control blocks, scripts, functions, debugging, and breakpoints. On a basic level, students will also become familiar with Visual Basic script, BASH, Korn Shell, C shell, PERL, and PHP. This course is a required course for the NSA/DHS KU alignment for the CAE-CDE designation.

**Learning Outcomes:**

At the end of this course, the student will:

- A. perform system operations using PowerShell commands;
- B. write PowerShell commands that use pipelined operations and variables;
- C. build PowerShell scripts and functions that are reusable; and
- D. describe common scripting languages and their capabilities.

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

1. perform PowerShell commands for basic system operations (A);
2. describe the PowerShell help system and Microsoft Technet resources (A);
3. implement PowerShell commands to access system resources (A);
4. write PowerShell commands that pipe output to other commands (B);
5. implement variables that store output from and pass input to commands (B);
6. write PowerShell commands that manipulate strings and perform mathematical operations (B);
7. write PowerShell scripts that use conditions and looping blocks (C);
8. write PowerShell functions that are stored in modules (C);
9. describe Unix/Linux BASH, Korn shell, and C shell capabilities (D); and
10. describe Visual Basic, PERL, and PHP scripting capabilities (D).

**Course Requirements:**

- To pass the course, student must achieve a course average of 70% or above.
- Students must have access to a computer (not mobile device), Microsoft Office, and the Internet to complete the assignments. Computer, software, and the Internet are available to students on campus during scheduled computer lab times and in the Learning Commons located in the BPCCLibrary.

- Students are required to use BPCC's LMS and are encouraged to use the BPCC Library to research topics and employment opportunities.

**NICE Framework Categories:**

Operate and Maintain (OM)

**Specializations:**

- Data Security Analysis
- Digital Forensics

**CAE Knowledge Unit Mapping**

- Basic Scripting and Programming (BSP)

**Course Grading Scale:**

- A = 90 - 100
- B = 80 - 89
- C = 70 - 79
- D = 60 - 69
- F = 0 - 59

**Attendance Policy:**

Each student is expected to attend class regularly; excessive unexcused absences constitute grounds for suspension. Refer to the student handbook for [Attendance Policy](#).

**Course Fees:** This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams and/or clinical fees.

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