Bossier Parish Community College
Master Syllabus

Course Prefix and Number: CTEC 272   **Credit Hours:** 3-3-0

Course Title: Advanced Topics in Linux

Course Prerequisite: CTEC 172

Textbook(s): Red Hat System Administration II – RHEL 8 RH134 -EN provided free of charge to student on Red Hat portal.

Software: The lab environment will be provided by Red Hat Portal. There is no charge to the student.

Course Description: This course is mapped to the Red Hat System Administration II (RH134) course and goes deeper into enterprise Linux administration including file systems and partitioning, logical volumes, SELinux, firewalling, and troubleshooting.

Learning Outcomes:
At the end of this course, the student will:
   A. install Red Hat Enterprise Linux using scalable methods;
   B. access security files, file systems, and networks;
   C. execute shell scripting and automation techniques;
   D. manage storage devices, logical volumes, and file systems;
   E. manage security and system access;
   F. control the boot process and system services; and
   G. install Ansible and implement playbooks.

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. write simple bash scripts (C);
   2. schedule future user and system job tasks (C);
   3. tune system performance on a Red Hat Enterprise Server (E);
   4. control access to files and folders using ACLs (E);
   5. manage security using SELinux Security (E);
   6. manage basic storage and swap space (B);
   7. manage logical volumes (D);
   8. manage layered storage and network attached storage (B);
   9. control the boot process (F);
   10. install Red Hat Enterprise Linux (A);
   11. install Ansible (G); and
   12. write Ansible automation code using playbooks. (G)

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

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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