# 8/15/2020

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 11 March 2024

Term and Year of Implementation: Fall 2024

**Course Title:** Linux/Unix System Programming

**BRCC Course Rubric:** CSCI 2153

**Previous Course Rubric**: CSCI 215

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 3-0-3

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 45-0-45

**Louisiana Common Course Number:**

**CIP Code:** 11.0201

**Course Description:** Introduces the Linux operating system. Students will learn basic Linux administration, Linux file and directory structure, basic network configuration, and how to utilize office-related tools available in Linux. This course requires a materials fee.

**Prerequisites:**  CSCI 1933 (or CSCI 193)

**Co-requisites:** None

**Suggested Enrollment Cap:** 25

**Learning Outcomes.** *Upon successful completion of this course, the students will be able to:*

1. Recall the basic set of commands, utilities, library functions, and system calls in Linux.

2. Install a Linux operating system by configuring settings, services, and access rights.

3. Manage network settings and services.

4. Secure Linux using encryption and other security methods.

**Assessment Measures.** Assessment of all learning outcomes will be measured using the following methods:

1. Instructor prepared tests, quizzes, and final exam

2. Projects

3. Presentations

**Information to be included on the Instructor’s Course Syllabi:**

* ***Disability Statement*:** Baton Rouge Community College seeks to meet the needs of its students in many ways. See the Office of Disability Services to receive suggestions for disability statements that should be included in each syllabus.
* ***Grading:*** The College grading policy should be included in the course syllabus. Any special practices should also go here. This should include the instructor’s and/or the department’s policy for make-up work. For example in a speech course, “Speeches not given on due date will receive no grade higher than a sixty” or “Make-up work will not be accepted after the last day of class”.
* ***Attendance Policy*:** Include the overall attendance policy of the college. Instructors may want to add additional information in individual syllabi to meet the needs of their courses.
* ***General Policies*:** Instructors’ policy on the use of things such as beepers and cell phones and/or hand held programmable calculators should be covered in this section.
* ***Cheating and Plagiarism*:** This must be included in all syllabi and should include the penalties for incidents in a given class. Students should have a clear idea of what constitutes cheating in a given course.
* ***Safety Concerns:*** In some courses, this may be a major issue. For example, “No student will be allowed in the lab without safety glasses”. General statements such as, “Items that may be harmful to one’s self or others should not be brought to class”.
* ***Library/ Learning Resources:*** Since the development of the total person is part of our mission, assignments in the library and/or the Learning Resources Center should be included to assist students in enhancing skills and in using resources. Students should be encouraged to use the library for reading enjoyment as part of lifelong learning.

**Expanded Course Outline:**

I. Introduction to operating systems

II. Introduction to UNIX: Linux/UNIX history

III. Effective shell (CLI) usage: basic commands and utilities

IV. Bash shell programming

V. GNU programming and development tools

VI. Introduction to C++ language programming

VII. System programming

VIII. Network programming

IX. GUI programming