

BRISTOL COMMUNITY COLLEGE
Fall River, Massachusetts
Spring 2020
K105

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SYLLABUS

CIS232 - UNIX/Linux System Administration II

COURSE DESCRIPTION

This course builds on the Linux server and Linux client administration skills learned in previous coursework. After installing a Linux server, students manage network services. These include DNS, DHCP, file and print services, Web services, directory services, and firewall services. Samba server and Samba client is installed and configured to allow Linux and Windows computers to share resources. Students will also install and configure Apache Web server on a Linux server and learn to administer the Web server. Firewall services and LDAP are installed and configured to allow secure access to services. Three hours of lecture per week.

Prerequisite: CIS133 and CIS231 both with a grade of C or better, or permission of the instructor.

STUDENT LEARNING OUTCOMES

Students who successfully complete UNIX/Linux System Administration II will be able to:

- Install and configure a Linux Operating System.
- Install and configure a DHCP Server and DHCP Client
- Configure a Linux machine as a NAT router
- Install and configure a DNS server and DNS Client using BIND
- Install and configure NFS and SAMBA file sharing
- Install and configure Network Printing using CUPS
- Configure cross platform authentication between Linux and Windows server and client computers
- Install and configure Apache Web Server
- Install and configure FTP Server

TEXTBOOK

No required textbook. Web Resources will be used for all topics covered in the course.

REQUIREMENTS

The student will be required to complete all assignments. The class designated virtual operating systems must be used to perform the assignments. Unless otherwise stated, these assignments will be due two weeks from the date assigned. If an assignment is submitted after

the due date, there will be a 15-point deduction from the grade for each week that it is late. Assignments more than 2 weeks late will NOT be accepted. All assignments will be available from the class website.

EXAMINATIONS

A cumulative 2-hour final exam will be given at the end of the course.

GRADING

Weight of exams and lab assignments:

Final Exam	25%
Homework Assignments	65%
Timeliness and quality of Homework Submissions	10%

Homework and the Final exam will be graded on a percentage basis as follows:

All work will be graded on a percentage basis as follows:
A = 95 – 100
A- = 90 – 94
B+ = 87 – 89
B = 84 – 86
B- = 80 – 83
C+ = 77 – 79
C = 74 – 76
C- = 70 – 73
D = 69 – 64
D- = 63 - 60
F = Less than 60

TEACHING METHODOLOGY

The course is a directed study course that is being presented as an online course. The course lectures and homework will be posted on the course website.

ATTENDANCE

Students are required to contact me via email at least once per week. If no contact is made over a period of 4 weeks, the student will receive an F as a final grade.

Withdrawal Policy

Students are responsible for withdrawing officially if they stop attending any or all classes.

Faculty no longer have the ability to withdraw a student from a class. A grade of “F” will be assigned to any student who stops attending a course but does not officially withdraw.

Students are encouraged to meet with an advisor before making any changes to their schedule.

Withdrawals effect Satisfactory Academic Progress and can place the student at risk for academic probation or dismissal. Students who use financial aid and who subsequently

withdraw may be required to return some or all funds received. Withdrawals are accepted until the tenth week of classes of a 14-week semester or an equivalent amount of class time for shorter duration courses (refer to the [Academic Calendar](#) for student-generated withdrawal dates). Students may withdraw online in accessBCC, in person at any Enrollment Center, or via their college email to enrollmentservices@bristolcc.edu. Email requests must come from the student's BCC college email address and must include the student's name, BCC student ID number, and course information (CRN, course and section number). **Email from non-college accounts will not be accepted.** If a student officially withdraws after the third week of classes, there will be no tuition or college fee refunds. For more information, see the [College Withdrawal Policies and Procedures](#) in the college catalog. Students with questions should contact Enrollment Services via any of the methods mentioned above or at 774-357-2590.

Plagiarism Policy (Academic Dishonesty)

A college community must be established on a foundation of truth and academic integrity. Bristol Community College has an obligation not only to promote these high standards of academic honesty, but also to address academic dishonesty. Academic dishonesty is demonstrated by cheating, plagiarism, and facilitating academic dishonesty.

- Cheating – Includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the College faculty or staff. Cheating shall also include the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Taking credit for work done by another person or doing work for which another person will receive credit. Copying or purchasing other's work or arranging for others to do work under a false name. (Student Handbook)
- Plagiarism – Includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. This would also include material that is obtained from the computer. (BCC Student Handbook)
- Facilitating Academic Dishonesty: Students who allow their work to be used by other students or who otherwise aid others in academic dishonesty are violating academic integrity.

Read the policy online: [Academic Dishonesty](#):

Disability Statement

If you are a student who would normally seek accommodations in a traditional, face to face classroom, please speak to me and the Office of Disability Services as soon as possible. You may contact the Office of Disability Services to arrange for appropriate accommodations by calling 508-678-2811--Fall River, ext. 2955; Attleboro, ext. 2996; New Bedford, ext. 4011) or by stopping by L109. You may also contact the Office of Disability Services online at: [Disability Services](#).

Your commitment: For each hour in class, you should plan to put in 2 to 3 hours outside of class. You need to recognize that commitment and include it in your planning. The course outline includes a TENSATIVE schedule of homework based on previous semesters.

COURSE OUTLINE

Class Meeting Date	TOPIC COVERED Reading / Resources All reading and reference materials required for the course will be available on the course website's supplemental materials page.	Homework Each homework assignment includes questions and task-based problems that require the hands-on application of the concepts covered in that chapter.
1	Course Introductions and Overview ■ Course overview ■ Review NFS & NIS	Homework #1 – Review Assignment
2	■ DHCP	DHCP Homework
3	■ NAT	NAT Homework
4	■ Printing	Printing Homework
5	■ SAMBA Basics	Samba Homework #1 – Access Linux samba shares from Windows Samba Homework #2 – Access Windows shares from Linux
6 & 7	■ SAMBA – PDC	Samba Homework – PDC
8	■ Spring Break – No Classes ■ Active directory Integration	Homework – AD
9	■ Apache	
10	■ FTP	Homework – Apache & FTP
11	■ DNS	Homework – DNS
12	■ SSH / VNC	Homework – ssh / vnc / tunneling
13	■ ACL ■ Package Management	
14	■ Wrap up	