LINUX SYSTEMS COSC 2465 - 001 School of Engineering & Computing Sciences Fall 2021

A. COURSE INFORMATION

Course number/section: cosc 2465 - 001

Class meeting time: T/TH 2:00 PM - 3:15 PM

LAB 3:30 -4:45 PM

Class location: CI 230

Course Website: bb9.tamucc.edu

B. <u>INSTRUCTOR INFORMATION</u>

Instructor: Dr. Saman Desilva

Office location: CI 331

Office hours: T/TR10:0011:00AM PM; MW:11:30 – 1:00PM

Telephone: x3831

e-mail: saman.desilva@tamucc.edu

Appointments: email (All emails must have our class number in the subject line to respond

in a timely fashion.)

C. COURSE DESCRIPTION

This course focuses on providing students with essential knowledge and skills to implement, administer, and troubleshoot servers in a networked environment. Operating system concepts, such as installing a standalone system, file systems authentication, and user support services are explored. Topics will include security issues, user and group administration, active directory services, DHCP, DNS, SSH, backup and restoration strategies and techniques, integrated mass storage technologies, and alternative client technologies.

D. PREREQUISITES AND COREQUISITES

COSC 1435 - Introduction to Problem Solving with Computers I.

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

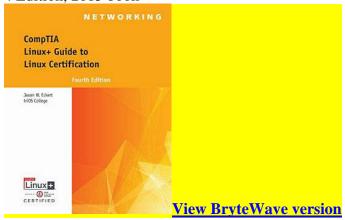
No textbook is required, as alternate Students are required to subscribe to electronic labs (the cost of the lab will be \$85-\$125)

Highly recommended TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)

CompTIA Linux+ Gd to Linux Cert (w/DVD, Bind-In Access)

4 Edition, 2015 book



View Table of Contents

Format:

Other

Author(s):

Jason W. Eckert

Publisher:

Cengage Learning

• ISBN-13:

9781305107168

• DIGITAL ISBN-13:

9781305480827

• ISBN-10:

1305107160

Supplies

Requires: Windows operating system or MAC OSx operating system. Computer running VM-ware (with at least 8 G memory)

E. STUDENT LEARNING OUTCOMES AND ASSESSMENT

By the end of this course, students should be able to:

- 1. Install and configure services on Fedora and Ubuntu.
- 2. Design shell programs using bash, awk, sed, and regular expressions to install and configure server services.
- 3. Work with Linux command line structure to: process text streams using filters; perform file management; use streams, pipes and redirects; create, monitor and kill processes; search text files using a regular expression.
- 4. Design hard disk layout, install and configure boot managers, and work with package managers.
- 5. Be able to recognize replace different hardware components in the computer.

F. INSTRUCTIONAL METHODS AND ACTIVITIES

Instructional methods will consist of lectures, in-class exercises, quizzes, pop quizzes, and homework/labs assignments.

G. MAJOR COURSE REQUIREMENTS AND GRADING

ACTIVITY	% of FINAL GRADE
Exams	50
Quizzes/pop	10
Assignment/labs	40

Grading scale: A: 100-90, B: 89-80, C: 79-70, D: 69-60, and F: 59-0

Homework Assignments:No late homework assignments will be accepted. Partial credit will be given for incomplete assignments. Some assignments may be due end of the class period. **Labs:** In-class or out-of-class lab will be assigned. In-class labs are due in class unless otherwise stated. Only the first attempt of the lab or assignments will be taken as a grade.

Quizzes: There will be some announced and unannounced quizzes during the semester.

Exams: 1-2 exams and final be given

H. COURSE CONTENT/SCHEDULE

Tentative Course Schedule (Subject to change)

Week 1:	Introduction – VMware/Fedora Install

Week 2:	The Linux Shell
Week 3:	The Linux Shell
Week 4:	The Linux Shell
Week 5:	Linux System Design
Week 6:	BOOT AND SHUTDOWN
Week 7:	GRAPHICAL USER INTERFACES AND DESKTOPS
Week 8:	Online Package Installation
Week 9:	USERS AND GROUPS
Week 10:	DISK AND FILE SYSTEM MANAGEMENT
Week 11:	File Systems
Week 12:	Ownership
Week 13:	HARDWARE INSTALLATION
Week 14:	Processes
Final Exam TBA	

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

I. COURSE POLICIES

Attendance/Tardiness

Attendance is mandatory. Students are responsible for all materials covered in class and assigned. Should a student be absent from class, it is his/her responsibility to get the notes, etc. for that missed class. More important, should there be assignments, it is the student's responsibility to obtain such assignments. No excuse will be accepted for assignments not turned in because the student was absent when it was due or assigned.

Late Work and Make-up Exams

There will be homework/lab assignments will be given. Partial credit will be given for incomplete assignments. Home lab/Quiz will significantly be based on the material from the lectures and other material considered essential for the successful completion of this

course. They will be handed/web links out in the class during the lecture. The submission details will be provided to you along with the assignment (mostly on webex). All the homework assignments are due at the beginning of the class on the due date or due date/time assigned on the blackboard. If the student is absent on the due date, it is the student's responsibility to see to it that the assignment is submitted on the designated date. An assignment that is turned in after the class on the due date is considered one day late. There is a penalty for late submissions. 10% penalty for 1-2 days late.20% penalty for 3-4 days late.50% penalty for 5 days late. 100% penalty (i.e. no credit) if submitted after 5 days. If you have not completed your assignment by the due date, you should submit the work you have done for partial credit. No work will be accepted once the graded work has been returned or the solution has been disclosed to the class, except for unusual circumstances which the instructor feels reasonable. Be sure to backup your work. Note that any kind of hardware or software failure or machine unavailability in the lab does not merit an extension on the assignment. Diskettes upon which major examinations, assignments, projects or papers submitted may be retained by the instructor as a permanent record of the student's work.

Extra Credit: There is no EXTRA CREDIT

Absence from class: Students are responsible for all materials covered in class and assigned. Should a student be absent from class, it is his/her responsibility to get the notes, etc. for that missed class. More important, should there be assignments, it is the student's responsibility to obtain such assignments. No excuse will be accepted for assignments not turned in because the student was absent when it was due.

Cell Phone Use

Cell phones and pagers must be turned off during class. The first violation receives a warning. All succeeding violations result in a ten points deduction on the last exam. Any violation during a quiz or exam results in a ten percent deduction from the corresponding paper. No warnings for quizzes or exams.

Laptop Use

Laptops, Tablets cannot be used in the class.

Food in Class

No food in the class or labs.

Missed Exam

You can make up missed exam if you have a valid excuse, and You Let me know **beforehand**.

Participation

Required.

Collaboration:

There is no collaboration allowed on homework assignments. You are expected to avoid all forms of academic dishonesty as defined in Catalog. In addition, students are expected to behave ethically in all class activities. If you feel uncertain about a particular activity, please speak to me BEFORE problems arise. Ethical behavior is a requirement for passing this course. All work submitted for grading must be the student's own work. Plagiarism will result in a score of 0 (zero) for the work or F grade from the course and the Dean of Students office will be notified. No copying from another student's work, of any class, is allowed. The student must allow not allow one to copy his or her work. Anyone found cheating and/or copying, in the exams or assignments, in the instructor's opinion, will receive an automatic F for the course.

Student Safety Trainings

Required safety training and/or lab safety seminars must be successfully completed once every academic year, normally in the Fall. Students will be required to take the course from Blackboard in either the first lecture or first lab to complete their training assignments and show the certificate of completion before the end of the class or lab. Students who are still covered by having taken the safety training earlier should show their certificate of completion. For students unable to attend first day of class/lab (or still registering for the class), a reasonable completion date will be flagged in Starfish. A possible grade penalty can be enforced for non-completion.

Others

J. COLLEGE AND UNIVERSITY POLICIES

Campus Emergencies*

At TAMU-CC, your safety is a top concern. We actively prepare for natural disasters or human-caused incidents with the ultimate goal of maintaining a safe and secure campus.

- For any emergency, dial the University Police Department (UPD) at **361-825-4444** or dial 911. It's a good idea to have the UPD emergency number (and non-emergency number 361-825-4242) saved in your cell phone.
- There are nearly 200 classroom telephones throughout campus. If you feel threatened or need help and don't have a cell phone, dial 4444 (emergency) or 4242 (non-emergency) to be connected to UPD.
- If we hear a fire alarm, we will immediately evacuate the building and proceed to (location).
 - Proceed to the nearest building exit or evacuation stairway. Do not use the elevator. Persons who need help navigating stairs should proceed to a marked Area of Rescue Assistance, if possible.

- Persons with disabilities should speak with their faculty about how to best assist them in case of an emergency.
- o Review the evacuation route (see specific Building Emergency Plan).
- TAMU-CC employs the Code Blue Emergency Notification System, an alert system which connects the campus community during emergency situations.
 - o The notifications include emails, text and pre-recorded messages, as appropriate.
 - Code Blue emergencies may include severe weather warnings, threats, school closures, delays, evacuations and other incidents which disrupt regular campus activities.
 - Students can update personal contact information anytime at https://emergency.tamucc.edu/contactform/
- Shelter in Place via Code Blue.
 - "Shelter-in-place" means to take immediate shelter where you are and may be implemented for severe weather, hazardous material spills, active shooters or other dangerous situations.
 - o If there is a shelter in place for a **tornado warning**, our preferred location is the bottom floor of this building, away from windows and doors.
- Active Threat Protocol. There are three things you could do that make a difference if
 there is an active threat: Run, Hide, and/or Fight. For more information about the Run,
 Hide, Fight protocol, including what to do when law enforcement arrives, visit
 http://safety.tamucc.edu/ems/activethreat.html

For the *Quick Campus Guide to Campus Emergencies* (including a list of Areas of Rescue Assistance and additional protocols on assisting persons with physical disabilities, hurricanes, bomb threats, animal bites, crime reporting, elevator entrapment, etc.), visit https://safety.tamucc.edu/uploads/Site/finalbooklet.pdf

• Academic Integrity (University)

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one's own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior

Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms,

labs, discussion groups, field trips, etc.

• Statement of Civility

Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high-quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• Deadline for Dropping a Course with a Grade of W (University)

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. *Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course.* Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

• Grade Appeals (College of Science and Engineering)

As stated in University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is required to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C0.03, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at

http://academicaffairs.tamucc.edu/rules procedures/assets/13.02.99.c0.03 student grade appeals.pdf). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

• Civil Rights Complaints

Texas A&M University-Corpus Christi is committed to fostering a culture of caring and respect that is free from discrimination, relationship violence and sexual misconduct, and ensuring that all affected students have access to services. For information on reporting Civil Rights complaints, options and support resources (including pregnancy support accommodations) or university policies and procedures, please contact the University Title IX Coordinator, Sam Ramirez (Samuel.ramirez@tamucc.edu) or Deputy Title IX Coordinator, Rosie Ruiz (Rosie.Ruiz@tamucc.edu) x5826, or visit website at Title IX/Sexual Assault/Pregnancy.

Limits to Confidentiality. Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, are not able to maintain confidentiality when it conflicts with their responsibility to report alleged or suspected civil rights discrimination that is observed by or made known to an employee in the course and scope of their employment. As the instructor, I must report allegations of civil rights discrimination, including sexual assault, relationship violence, stalking, or sexual harassment to the Title IX Coordinator if you share it with me.

These reports will trigger contact with you from the Civil Rights/Title IX Compliance office who will inform you of your options and resources regarding the incident that you have shared. If you would like to talk about these incidents in a **confidential** setting, you are encouraged to make an appointment with counselors in the University Counseling Center.

• Statement of Academic Continuity

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University—Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

K. OTHER INFORMATION

Academic Advising

The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College's Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

GENERAL DISCLAIMER

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.