Lity NEW YORK CITY COLLEGE OF TECHNOLOGY
THE CITY UNIVERSITY OF NEW YORK
Department of Computer Engineering Technology
300 Jay Street, Brooklyn, NY 11201-1909

EMT 2390L – Operating Systems Laboratory[1]

Term: Fall 2024
Credits: 1
Instructor: Dr. José M. Reyes Álamo (please address me as *Dr. Reyes* or *Prof. Reyes*)
Office: V621 or Online
Email: jreyesalamo@citytech.cuny.edu
Website: http://openlab.citytech.cuny.edu/jreyesalamo/
Course Website: https://openlab.citytech.cuny.edu/emt2390l/
Office Hours: https://openlab.citytech.cuny.edu/jreyesalamo/teaching/office-hours/

Textbook:
The Linux Command Line, 2nd Edition: A Complete Introduction, Willliam Shotts, No Starch Press, 2019.
ISBN-13: 9781593279523. Free PDF version available here.

Course Description:
Students study the characteristics of operating systems used in IBM systems. They learn how to install the operating systems and set it up to control the computer hardware. They also learn to use the features of the operating systems to manage the computer system.

Pre/Co Requisites:
EMT2370

Learning Objectives:
Download and install Linux and work with the Linux shell. Learn how to use the vi text editor and write shell scripts. Manage Linux files, directories, users, groups, file systems, software and processes. Administer ownership, permissions, and quotas. Manage network settings and services in Linux.

Program Educational Objectives and Student Outcomes:
Please refer to http://www.citytech.cuny.edu/computer-engineering/computer-engineering-btech.aspx

General Education Outcomes:
SKILLS/Inquiry/Analysis: Employ scientific reasoning and logical thinking.
SKILLS/Inquiry/Analysis: Use creativity to solve problems.

Attendance Policy:
The professor will take attendance at each class as it is required for you to be present. If you are absent more than twice you may receive a WU grade. Excessive lateness (more than 15 minutes) will be considered an absence. You must provide documentation for justified absences such as doctor's appointment, family emergency, jury duty, military service, etc. You are responsible for any material covered in class and compliance with deadlines.

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[1] The instructor reserves the right to modify the syllabus anytime.

Electronic Communication Policy:
Electronic communication with the instructor must be done using the official CityTech student email address. Emails send from personal addresses may be blocked or ignored. You must identify yourself in the first sentence of your email using indicating your name and the course and section you are in (e.g. Hello Dr. Reyes this is John Smith from EMT 2390L – D123). Avoid sending message via Blackboard, OpenLab, Facebook, etc. as they may not be delivered or answered.

Grading Criteria:

- **Exams:**
  Partial exams will be administered to test the knowledge acquired during the semester. Students are required to take exams the day and time they are scheduled. There is no make-up exam unless you have a valid reason according to CityTech's policy.

- **Final Exam:**
  A final exam will be administered at the end of the semester. This exam is comprehensive and will test the material of the entire semester. Students are required to take the exam the day and time scheduled. There is no make-up exam unless you have a valid reason according to CityTech's policy.

- **Labs:**
  Labs will consist of problem solving and programming assignments where students will apply the material learned in class. No late labs will be accepted.

Academic Integrity:
Students and others individuals who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Academic dishonesty is prohibited in the City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion.

Course Material:
Refer to the schedule of classes for appropriate deadlines and procedures. Course material as well as assignments and labs will be distributed electronically on Blackboard and on the class website. It is your responsibility to check for new material frequently, daily is recommended. Ignorance of applicable deadlines and procedures is not a basis for a waiver of existing regulations.

In-Class Expected Behavior:
Students must show respect to each other and to the professor. Students may not interrupt the class and must follow instructions from the instructor. The use of smartphones, cameras, and other electronic devices during class is prohibited. Please put devices away and on silent mode or turn them off. The use of computers and the internet is solely for work related to the class. For online classes please mute yourself if not speaking.

Grade Criteria:

Exam 1	20%
Exam 2	20%
Final Exam	30%
Labs	30%

Grading Scale:

Letter Grade	Numeric Average
A	93 – 100
A-	90 – 92
B+	87 – 89
B	83 – 86
B-	80 – 82
C+	77 – 79
C	70 – 76
D	60 – 69
F	0 – 59

Course Schedule:

Week	Topic	Chapters
1	Introduction & Motivation. Setting Up Virtual Machines Locally Linux Shell and Navigation.	1,2
2	Linux system. Files and directories. Working with commands	3,4,5
3	The environment Introduction to vi.	11, 12
4	Writing your first script. Starting a project. Exam 1 Review	24, 25
5	Exam 1	-
6	Top Down design. Flow control: if	26, 27
7	Reading keyboard input. Flow control: while/until	28, 29
8	Flow control: case. Flow control: for	31, 33
9	Strings and numbers. Redirection. Review for Exam 2.	34, 6
10	Exam 2	-
11	Expansion and quoting. Advanced keyboard tricks	7, 8
12	Permissions, processes	9, 10
13	Package management, networking	14, 16
14	Searching for files, archiving and backup. Final exam review.	17, 18
15	Final Exam	-