

Birzeit University
Computer Science Dept.
COMP311 (Linux OS Lab) Course Outline
First semester 2018/2019

Course Description:

This course provides hands on experience to teach students the fundamentals of the Linux Operating System. The lab experiments in this course are designed to introduce the students to the Linux environment and how to do text editing. They will also familiarize them with the Linux file system structure including file types and file metadata, shell usage and configuration, as well the basics of job and process management. The students will also practice text processing using filters and regular expressions. Training students to write shell scripts using programming constructs is a key part of this course. Finally students will touch on some Linux security and networking concepts.

Course Prerequisites

Comp133

Faculty:

Murad Njoom
Hafez Barghouthi

Office: Masri322
Office: Masri321

Placement:

Second Year Students, First Semester

Reference:

- *Linux OS Laboratory Manual COMP311 (version **1.2**), Nael I. Qaraeen.*

Special Regulations:

- *Late Projects will **NOT** be accepted for any reason.*
- *There will be **NO** makeup quizzes.*
- ***Attendance** is mandatory. University regulations will be strictly enforced.*

Course Objectives:

Upon completion of this course the students will understand the fundamental concepts behind the Linux OS. The students will also be able to:

1. Navigate and manipulate the Linux file system comfortably using the Red Hat Linux OS.
2. Customize and manage their own Linux shell environment.
3. Write shell programs to automate and facilitate different tasks.
4. Contribute individually or as group members to creating a shell programming project.

Grading Criteria

Lab Work and Participation	15%
First Project	15%
Quizzes	15%
Final Project	15%
Final Exam (Practical + Written)	40%

Lab content

Lab. #	Title of Experiment
1	<i>Introduction to Linux environment</i>
2	<i>Text editing (vi editor)</i>
3	<i>File Systems (I) (Structure and File Types)</i>
4	<i>File Systems (II) (File Metadata)</i>
5	<i>Shell Usage and Configuration (I)</i>
6	<i>Shell Usage and Configuration (II)</i>
7	<i>Job and Process Management</i>
8	<i>Text Processing Tools and Regular Expressions</i>
9	<i>Shell Scripts (I) –Introduction</i>
10	<i>Shell Scripts (II)- Programming (Selection Constructs)</i>
11	<i>Shell Scripts (III)- Programming (Looping Constructs)</i>
12	<i>Security and Networking Concepts</i>
13	<i>Final Practical Exam</i>