

MODULE 1

^ Intro to Linux System Programming and Toolchains

📺 2h 35m of videos left

📖 30 min of readings left

📝 4 graded assessments left

In this module, you will learn about Linux shell scripting and System Programming concepts. You will also understand the basics of an Embedded Linux toolchain and setup a cross-compiler.

Learning Objectives

- Describe System Programming components like Filesystems, Inter Process Communication, Users and Groups, and Error Handling.
- Write shell scripts to automate tasks.
- Create a cross compile environment using scripts and existing tools.

^ Linux Preview/Refresher (optional/background)



Non-Credit Students: Welcome and Where to Find Help

Reading • 10 min



Introducing Honorlock for For-Credit Exam Proctoring

Reading • 10 min

Resume



Linux Overview

Video • 11 min



Linux Command Line

Video • 8 min



Advanced Linux Command Line

Video • 19 min












Scripts

Video • 6 min

^ Course Introduction

2 graded assessments left

-  Academic Integrity and Getting Help
Due, Oct 25, 11:59 PM -03 Graded Assignment • 1 min
• Grade: --
-  Assignment 1 Overview
Video • 15 min
-  Assignment 1 Instructions
Reading • 10 min
-  Assignment 1: Bash Scripting Basics
Due, Oct 26, 11:59 PM -03 Peer-graded Assignment • 3h
• Grade: --
-  Assignment 1: Bash Scripting Basics
Due, Nov 19, 11:59 PM -03 Review Your Peers • Grade: --
-  Course Introduction
Video • 3 min
-  Course Format
Video • 5 min
-  Licensing
Video • 10 min
-  Environment Setup
Video • 11 min

^ Introduction to System Programming

2 graded assessments left



System Programming

Video • 10 min



Linux Filesystems

Video • 12 min



Processes and Threads

Video • 6 min



Users and Groups

Video • 2 min



System Programming and Error Handling

Video • 3 min



Intro to System Programming

Due, Oct 31, 11:59 PM -03 Graded Assignment • 15 min • Grade: --



Embedded Linux Toolchain Overview

Video • 18 min



Logging and Syslog

Video • 3 min



Assignment 2 Overview

Video • 5 min



Assignment 2 Instructions

Reading • 10 min



Assignment 2: File Operations and Cross Compiler

Due, Nov 1, 11:59 PM -03 Peer-graded Assignment • 4h • Grade: --



Assignment 2: File Operations and Cross Compiler

Due, Nov 19, 11:59 PM -03 Review Your Peers • Grade: --