

Course Code	Course Title	L	T	P	C
1156EC404	MOOC - LINUX PROGRAMMING AND SCRIPTING	0	0	0	2

**a) Course Category**

Independent Learning – Self Learning Course

**b) Preamble**

This course introduces the basic concepts of Linux administration and operating system, provide information to data and driver management, and explain execution procedure, debugging and kernel structure along with scripting.

**c) Prerequisite**

NIL

**d) Related Courses**

Linux Device Drivers

**e) Course Outcomes**

CO Nos.	Course Outcomes	Knowledge Level (Based on Revised Bloom's Taxonomy)
CO1	Understand basic Linux commands and usage of file operations.	K2
CO2	Explain Linux networking services.	K2
CO3	Use basic Perl scripting.	K2
CO4	Understand widget implementation using Tcl/Tk.	K2
CO5	Understand control flow and exception handling using Python.	K2

**f) Course Content**

**UNIT I LINUX BASICS**

Introduction to Linux, File System of the Linux, General usage of Linux kernel & basic commands, Linux users and group, Permissions for file, directory and users, Searching a file & directory, zipping and unzipping concepts

**UNIT II LINUX NETWORKING**

Introduction to Networking in Linux, Network basics & tools, File transfer protocol in Linux, Network file system, Domain Naming Services, Dynamic hosting configuration Protocol & Network information Services

**UNIT III PERL SCRIPTING**

Introduction to Perl Scripting, working with Simple Values, Lists and Hashes, Loops and Decisions, Regular Expressions, Files and Data in Perl Scripting, References & Subroutines, Running and Debugging Perl, Modules, Object-Oriented Perl

**UNIT IV TCL/TK SCRIPTING**

Tcl Fundamentals, String and Pattern Matching, Tcl Data Structures, Control Flow Commands, Procedures and Scope,, Tk Fundamentals, Tk by Examples, The Pack Geometry Manager, Binding Commands to X Events, Buttons and Menus, Simple Tk Widgets

**UNIT V PYTHON SCRIPTING**

Introduction to Python, Using the Python Interpreter, More Control Flow Tools, Data Structures, Modules, Input and Output, Errors and Exceptions, Classes, Brief Tour of the Standard Library

**g) Learning Resources**

**Online Resource**

1. <http://nptel.ac.in/syllabus/117106113/>