

COURSE CODE	COURSE TITLE	L	T	P	C
1152CS133	OPEN SOURCE SYSTEM	3	0	0	3

**Course Category: Program Elective**

**A. Preamble:**

This course provides Need of Open Sources –Advantages of Open sources – Over View of Applications- FOSS – FOSS usage –Free Software Movement and concept of open Source Software to learn Linux Environment and to make students well versed with Shell Programming

**B. Pre-requisite:**

SI No	Course Code	Course Name
1	1150CS201	Problem solving using C
2	1151CS102	Data Structures

**C. Links to Other Courses:**

SI No	Course Code	Course Name
1	1151CS108	Operating Systems
2	1152CS118	Distributed and Parallel Computing
3	1152CS120	Cloud Computing

**D. Course Educational Objectives**

Students undergoing this course are exposed to

- To introduce the concept of open Source Software.
- To enable students to learn Linux Environment.
- To make students well versed with Shell Programming

**E. Course Outcomes:**

At the end of the course, the students are able to know:

CO Nos.	Course Outcomes	Level of learning domain (Based on revised Bloom's taxonomy)
CO1	Summarize the advanced concept of Linux open source operating systems.	K2
CO2	Illustrate the concept of structure query language with report based Hyper text preprocessor.	K2
CO3	Understand the operation to develop personal home page with hyper text markup language.	K2
CO4	Outline the object concepts of personal home page language.	K3
CO5	Explain the working architecture of web server with IDE application.	K2

**K2-Understand, K3-Apply**

## F. Correlation of COs with Programme outcomes:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	M	L	L											L	
CO2	H	M	L		M										L
CO3	H	M	M		L										
CO4	L		L		L								L	M	
CO5	M							L				L	M	M	

## G. Syllabus Content

### Unit 1 INTRODUCTION 9

Need of Open Sources – Advantages of Open Sources – Applications – Commercial aspects of Open Source movement – Certification courses issues. Open Source Operating Systems: LINUX – Introduction – General Overview – Kernel mode and User mode process. Advanced Concepts: Scheduling, Time Accounting – Personalities – Cloning and Backup your Linux System – Linux Signals – Development with Linux. Linux Networking: Configuration Files – Red Hat Linux network GUI configuration tools – Assigning an IP address – Subnets – Route – Tunneling – Useful Linux network commands – Enable Forwarding.

### Unit 2 MySQL 9

Introduction – What is MySQL? - MySQL Data Types - Primary Keys and Auto Increment Fields – Queries - Download MySQL Database - Facts About MySQL database - Connecting to a MySQL Database - writing your own SQL programs - Closing a Connection. PHP MySQL Create Database and Tables: Create a Database - Create a Table - Insert Data into a Database Table - Insert Data from a Form into a Database. Record Selection Technology: Select Data from a Database Table - Display the Result in an HTML Table - The WHERE clause - The ORDER BY Keyword – Working with Strings – Date and Time – Working with metadata. Sorting Query Results: Sort Ascending or Descending - Order by Two Columns - Update Data in a Database - Delete Data in a Database - Using sequences – MySQL and Web. Database ODBC: Create an ODBC Connection - Connecting to an ODBC - Retrieving records - Retrieving Fields from a Record - Closing an ODBC Connection.

### Unit 3 PHP INTRODUCTION 9

A Brief History of PHP - Installing PHP - A Walk Through PHP - Installing and Configuring PHP on Windows. Language Basics: Lexical Structure -Data Types -Variables -Expressions and Operators – Constants - Flow-Control Statements -Including Code -Embedding PHP in Web Pages. Functions: Calling a Function - Defining a Function - Variable Scope –Function Parameters - Return Values -Variable Functions - Anonymous Functions. Strings: Quoting String Constants - Printing Strings - Accessing Individual Characters -Cleaning Strings - Encoding and Escaping -Comparing Strings - Manipulating and Searching Strings - Regular Expressions. Arrays: Indexed Versus Associative Arrays - Identifying Elements of an Array - Storing Data in Arrays - Multidimensional Arrays - Extracting Multiple Values - Converting Between Arrays and Variables - Traversing Arrays - Sorting - Acting on Entire Arrays - Using Arrays.

