

15 Week Lecture Plan:

Lecture schedule	
Week 1	Linux basics, Layers of Linux/Unix, Kernel, Shell, File System, Linux basic commands, Editor Commands, Usage of special characters, System Resource Commands, User Commands, Disc Space Commands,
Week 2	File System Commands , Linux Networking Basics, OSI Model- basic definitions and their interaction, TCP/IP Layer Model, IP Addressing, Address Structure, Network Masks, Network Troubleshooting Tools
Week 3	File Transfer Protocol, Domain Name System (DNS), PPP connections, DHCP, LDAP, Understanding Email, Linux Email Clients, File Service Architecture
Week 4	File Service Architecture (continued..), Distributed File System (DFS): Network File System (NFS) and Andrew File System (AFS), Network File System and Andrew File System (continued..), Kerberos, Network Information System (NIS)
Week 5	Introduction, File Handler, Arrays, String Matching, Functions, Reading from a File, Writing to a File, Strings, Operators, Precedence and Associativity, Operator Precedence Table, Scalar Variables
Week 6	Binary Operator Interpolation of scalar strings, chop, chomp, STDIN, undef value, Array and List Data, Range Operator, Array Variables, Slice, Array as a stack, shift(), unshift(), Operations on Arrays: Reverse, sort, chop, Array References
Week 7	Hash, Hash Variables, variable types in Perl, changing a Hash, References and DeReferences, Function Fundamentals, Parameters, Basics of Pattern Matching, Substitutions, Transliterate operator
Week 8	Function Declaration, Calling a Function, Passing parameters, Local variables, Returning Values, Control Structures, grep, Hash Intersections, Debugger and Breakpoints, Perl Modules: writing and Usage
Week 9	Overview of Tcl/Tk, Tool Command Language and its Usage, Tcl Language Programming, Basics, Arguments, Variable Substitution, Command Substitution, Word Structure, Tcl Expressions, Tcl Arrays and Lists
Week 10	String Manipulation, Globbing and Regular Expressions, Scan and Format commands, Control Structures, Procedures and Scope, Advanced Error Handling, Tcl File I/O, Positional and Non-Positional Arguments, Tcl Scripting Rules, TCP, Ports and Sockets, Tcl Network I/O, I/O and Processes
Week 11	Tcl Features, Summary of Tcl Command syntax, Tk, Structure of Tk Application, Tk Widgets, Packer, Hierarchical Packing, Data Binding and Various Tk Commands, Windows and Widgets, Widgets and Class, Creating Windows, Naming Tk Widgets, Binding Order, TkCal, Text Widget, Canvas Widget.
Week 12	Tcllets, Designing new commands, Executing Tcl Scripts, Packages, Utility Procedures: Parsing and Variables, Bindtags, other Widgets, Client Data, Packages (continued..), expect, TclDii, Tcl and Tk Versions, Tcl in Synopsys Tools
Week 13	Variable Types, Variable Names, Operators, Type Conversions, Operators acting on Strings, Scope of a Variable, Comparison operators, Functions, Iteration, Flow control within loops, Parallel Traversals, Strings- basics, escape sequences, formatting, slices, methods, regular expressions
Week 14	Strings: object functions, capture groups, Collection data types: Tuples, Lists, Dictionaries, Copying collections, Exception Handling, Python Modules: basics, changing data in modules, reloading modules, module packages, Import as statement, data Encapsulation
Week 15	Comments, dir, documentation strings, introduction to classes, member data scope, examples, Inheritance, Destructors, Example Python Programs explanation

