



40 hour lecture Plan

Week No	Hour No	Unit	Topics	Learning Outcome
Week 1	Hour 1	1	Linux basics, Layers of Linux/Unix, Kernel, Shell, File System	L4
Week 1	Hour 2	1	Linux basic commands, Editor Commands, Usage of special characters	L4
Week 1	Hour 3	1	System Resource Commands, User Commands, Disc Space Commands	L4
Week 2	Hour 4	1	File System Commands	L4
Week 2	Hour 5	2	Linux Networking Basics, OSI Model- basic definitions and their interaction, TCP/IP Layer Model	L4
Week 2	Hour 6	2	IP Addressing, Address Structure, Network Masks, Network Troubleshooting Tools	L4
Week 3	Hour 7	2	File Transfer Protocol	L4
Week 3	Hour 8	2	Domain Name System (DNS), PPP connections, DHCP, LDAP, Understanding Email	L4
Week 3	Hour 9	2	Linux Email Clients, File Service Architecture	L4
Week 4	Hour 10	2	File Service Architecture (continued.), Distributed File System (DFS): Network File System (NFS) and Andrew File System (AFS).	L4
Week 4	Hour 11	2	Network File System and Andrew File System (continued.), Kerberos, Network Information System (NIS)	L4
Week 5	Hour 12	3	Introduction, File Handler, Arrays	L1 + L4
Week 5	Hour 13	3	String Matching, Functions, Reading from a File, Writing to a File, Strings	L1 + L4
Week 5	Hour 14	3	Operators, Precedence and Associativity, Operator Precedence Table, Scalar Variables	L1 + L4
Week 6	Hour 15	3	Binary Operator Interpolation of scalar strings, chop, chomp, STDIN, undef value	L1 + L4
Week 6	Hour 16	3	Array and List Data, Range Operator, Array Variables, Slice, Array as a stack, shift(), unshift()	L1 + L4
Week 6	Hour 17	3	Operations on Arrays: Reverse, sort, chop, Array References	L1 + L4
Week 7	Hour 18	3	Hash, Hash Variables, variable types in Perl, changing a Hash, References and DeReferences,	L1 + L4
Week 7	Hour 19	3	Function Fundamentals, Parameters, Basics of Pattern Matching, Substitutions, Transliterate operator	L1 + L4
Week 8	Hour 20	3	Function Declaration, Calling a Function, Passing parameters, Local variables, Returning Values, Control Structures, grep, Hash Intersections, Debugger and Breakpoints	L1 + L4



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Week 8	Hour 21	3	Perl Modules: writing and Usage	L1 + L4
Week 9	Hour 22	4	Overview of Tcl/Tk, Tool Command Language and its Usage.	L2 + L4
Week 9	Hour 23	4	Tcl Language Programming, Basics, Arguments, Variable Substitution, Command Substitution, Word Structure, Tcl Expressions, Tcl Arrays and Lists	L2 + L4
Week 10	Hour 24	4	String Manipulation, Globbing and Regular Expressions, Scan and Format commands, Control Structures	L2 + L4
Week 10	Hour 25	4	Procedures and Scope, Advanced Error Handling, Tcl File I/O, Positional and Non-Positional Arguments, Tcl Scripting Rules	L2 + L4
Week 10	Hour 26	4	TCP, Ports and Sockets, Tcl Network I/O, I/O and Processes	L2 + L4
Week 11	Hour 27	4	Tcl Features, Summary of Tcl Command syntax, Tk, Structure of Tk Application, Tk Widgets, Pacer, Hierarchical Packing	L2 + L4
Week 11	Hour 28	4	Data Binding and Various Tk Commands	L2 + L4
Week 11	Hour 29	4	Windows and Widgets, Widgets and Class, Creating Windows, Naming Tk Widgets, Binding Order, TkCal, Text Widget, Canvas Widget	L2 + L4
Week 12	Hour 30	4	Tclets, Designing new commands, Executing Tcl Scripts, Packages, Utility Procedures: Parsing and Variables	L2 + L4
Week 12	Hour 31	4	Bindtags, other Widgets, Client Data, Packages (continued..), expect, TclDii, Tcl and Tk Versions	L2 + L4
Week 12	Hour 32	4	Tcl in Synopsys Tools	L2 + L4
Week 13	Hour 33	5	Variable Types, Variable Names, Operators, Type Conversions, Operators acting on Strings	L3 + L4
Week 13	Hour 34	5	Scope of a Variable, Comparison operators, Functions.	L3 + L4
Week 13	Hour 35	5	Iteration, Flow control within loops, Parallel Traversals, Strings-basics, escape sequences, formatting, slices, methods, regular expressions	L3 + L4
Week 14	Hour 36	5	Strings: object functions, capture groups, Collection data types: Tuples, Lists, Dictionaries, Copying collections	L3 + L4
Week 14	Hour 37	5	Advanced Functions: Lambda, apply, map, filter, reduce, List Comprehensions	L3 + L4
Week 14	Hour 38	5	Exception Handling, Python Modules: basics, changing data in modules, reloading modules, module packages, Import as statement, data Encapsulation	L3 + L4
Week 15	Hour 39	5	Comments, dir, documentation strings,introduction to classes, member data scope, examples, Inheritance, Destructors	L3 + L4
Week 15	Hour 40	5	Example Python Programs explanation	L3 + L4