

SEMESTER-II

Course Code	PCS21C04J	Course Name	OPEN SOURCE TECHNOLOGIES	Course Category	C	Professional Core			
						L	T	P	C
						3	0	4	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department	Computer Science	Data Book / Codes/Standards			

Course Learning Rationale (CLR):		The purpose of learning this course is to:			1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-1:	Lean Open Source Software				Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Engineering Knowledge	Problem Analysis	Design & Development	Analysis, Design, Research	Modern Tool Usage	Society & Culture	Environment & Sustainability	Ethics	Individual & Team Work	Communication	Project Mgt. & Finance	Life Long Learning	PSO - 1	PSO - 2	PSO - 3
CLR-2:	Designing web page using PHP							L	H	-	H	L	-	-	-					-	-	-
CLR-3:	MYSQL Database							M	H	L	M	L	-	-	-					-	-	-
CLR-4:	Database Applications using PHP with MYSQL							M	H	M	H	L	-	-	-					-	-	-
CLR-5:	PERL							M	H	M	H	L	-	-	-					-	-	-
CLR-6:	Advanced PERL							H	H	M	H	L	-	-	-					-	-	-
Course Learning Outcomes (CLO):		At the end of this course, learners will be able to:			2	80	70	L	H	-	H	L	-	-	-					-	-	-
CLO-1:	Create a web page using OSS.				2	85	75	M	H	L	M	L	-	-	-					-	-	-
CLO-2:	Design a web page using PHP				2	75	70	M	H	M	H	L	-	-	-					-	-	-
CLO-3:	Design a web page using PHP with MYSQL				2	85	80	M	H	M	H	L	-	-	-					-	-	-
CLO-4:	Web page with CMS				2	85	75	H	H	M	H	L	-	-	-					-	-	-
CLO-5:	Web page using PERL commands				2	80	70	L	H	-	H	L	-	-	-					-	-	-
CLO-6:	Understand Advanced PERL techniques																					

Duration (Hour)	21	21	21	21	21
S1	SLO-1	PHP BASICS	Advanced PHP with MYSQL	Database	Scalar variables
	SLO-2	Introduction to PHP	Introduction to MYSQL	Database driven applications	Scalar operators
S2	SLO-1	Web Server	Exceptions	Sample applications	Functions
	SLO-2	Examples	Introduction	Advanced PHP with AJAX	Escape sequences
S3	SLO-1	Apache Web Server	Error Handling	Advanced PHP with SEO	Lists
	SLO-2	PHP-Data Types	Error Handling Functions	Advanced PHP with CMS	Arrays
S4-7	SLO-1	Laboratory 1: COOKIES	Laboratory 4 : Sample Application using PHP	Laboratory 7 : PHP with AJAX	Laboratory 10: String Operations in PERL
	SLO-2		MYSQL		
S8	SLO-1	Operators	Cookies Functions	CMS - Introduction	Subroutines
	SLO-2	Expressions	Sessions	PHP with AJAX	Input Statements
S9	SLO-1	Control Structures	Session Functions	AJAX Basics	Output Statements
	SLO-2	Functions	COM	PHP with Ajax Database driven applications	Hashes
					Read from file

Duration (Hour)	21	21	21	21	21
S10	SLO-1	Function Types	DOM	PHP with SEO	Hash Functions
	SLO-2	User Defined Functions	CURL	Basics SEO	Basic Input statement
S11-14	SLO-1	Laboratory 2: SESSIONS	Laboratory 5: Exception Handling	Laboratory 8: Hash Implementation	Laboratory 11 : Sorting
	SLO-2				Laboratory 14 : PERL Database Application
S15	SLO-1	Functions Arrays	Example for Classes and Objects	Introduction Advantages	Examples using Hashes
	SLO-2	Types of Arrays String Functions	Mail Functions Sample program using Mail Functions	Word Press – Introduction Blog - Introduction	Regular expressions
S16	SLO-1	Date Functions	URL Functions	Simple webpage using CMS	Control structures
	SLO-2	Time Functions	Introduction to PHP with MYSQL	BASIC PERL	Modules in PERL
S 17	SLO-1	Mathematical Functions	PHP and MYSQL functions	Introduction to PERL	Example using Regular expressions
	SLO-2	User Defined Functions	Database creation	Advantages of PERL	Example using control structure
S 18-21	SLO-1	Laboratory 3: Shopping cart using PHP with MYSQL	Laboratory 6: String Functions	Laboratory 9: Array Implementation using PERL	Laboratory 12: Applications using Modules
	SLO-2				Laboratory 15 : Advanced PERL techniques

Learning Resources	1. Mehdi Achour, Friedhelm, Betz Antony Dovgal, Nuno Lopes, Hannes Magnusson, Georg Richter, Damien Seguy, Jakub Vrana And several others, (1997-2011), "PHP Manual (Download the manual from PHP official website www.php.net)", The PHP Documentation Group. (For Units I to III) 2. Lee Babin,(2007), "Beginning Ajax with PHP From Novice to Professional", Apres., (For Units IV to V)	3. Jaimie Sirovich and Cristian Darie, (2007), "Professional Search Engine Optimization with PHP A Developer's Guide to SEO", Wiley Publishing, Inc., Indianapolis, Indiana. 4. Randal L. Schwartz, Tom Phoenix, brian d foy, "Learning Perl, Fifth Edition
---------------------------	--	--

Learning Assessment											
Bloom's Level of Thinking		Continous Learning Assessment(50% Weightage)								Final Examination (50% weightage)	
		CLA – 1 (10%)		CLA – 2 (10%)		CLA – 3 (20%)		CLA – 4# (10%)			
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice
Level 1	Remember	20%	20%	15%	15%	15%	15%	15%	15%	15%	15%
	Understand										
Level 2	Apply	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Analyze										
Level 3	Evaluate	10%	10%	15%	15%	15%	15%	15%	15%	15%	15%
	Create										
	Total	100 %		100 %		100 %		100 %		100%	

CLA – 4 can be from any combination of these: Assignments, Seminars, Short Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
Mr. S. Karthik, Assistant Consultant, Tata Consultancy Services	Dr.S.Sasikala, Associate Professor and Head, Dept. of Computer Science, University of Madras	Mrs.P.Yogalakshmi
		Dr..S.Sabeen