GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for
Master of Business Administration (Information Technology)
4th Semester
Subject Name: Web Programming Using PHP
Subject Code: 1549603

With effective from academic year 2020-21

About Web Programming using PHP:

Web Programming using PHP helps to get an insight on open source technology, the structure and syntax of PHP, database connectivity using SQL and No SQL databases, working with forms and user data, form and error handling, object oriented programming with PHP, XML, Parsing an XML Document and responsive web applications

Learning Outcome Component	Learning Outcome (Student will be able to)
Business Environment and Domain Knowledge (BEDK)	• *Develop* understanding of basics of open source technology • *Develop* understanding of basics of PHP.
Critical Thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	• *Provide* feasible technological solutions the structure and syntax of PHP
Global Exposure and Cross-Cultural Understanding (GECCU)	• Develop an understanding to handle HTML Form and process user input using PHP.
Social Responsiveness and Ethics (SRE)	• *Construct* a strong ethical framework for working with forms and user data, form and error handling.
Effective Communication (EC)	• *Determine* methods for evaluating the effectiveness and efficiency of parsing an XML Document and responsive web applications
Leadership and Teamwork (LT)	• Developing leadership with object oriented programming with PHP, XML

LO–PO Mapping:

Correlation Levels:
1 = Slight (Low); 2 = Moderate (Medium); 3 = Substantial (High), "-" = no correlation

Subject Code:	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
LO1: Develop understanding of basics of open source technology Develop understanding of basics of PHP.	2	3	-	1	1	-	-	1	2
LO2: *Provide* feasible technological solutions the structure and syntax of PHP	2	2	3	2	1	1	-	2	1
LO3: Develop an understanding to handle HTML Form and process user input using PHP.	-	2	2	1	3	1	1	2	-
LO4: *Construct* a strong ethical framework for working with forms and user data, form and error handling..	-	1	1	-	2	1	3	-	1

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LO5: *Determine* methods for evaluating the effectiveness and efficiency of parsing an XML Document and responsive web applications	1	1	-	3	1	2	-	1	2
LO6: Developing leadership with object oriented programming with PHP, XML	1	2	3	1	-	3	1	2	2

2. Course Duration: The course duration is of **40 sessions of 60 minutes each**.

3. Course Contents:

Module No.	Contents	No. of sessions	70 Marks (External Evaluation)
I	**Introduction and Working with PHP:** Overview of Open Source Software, Installation & Configuration of PHP, Introduction to PHP. PHP language Basics: Lexical Structure, Data types, Variables, Expressions and Operators, Control and Looping statements. Functions: Function Definition, Function Parameters, Returning Values. Strings: Usages and String Functions. Arrays: Types of Arrays and its Usages, Array functions. Objects: Declaring Class, Properties, Methods, Exception Handling, Examples.	10	18
II	**Web Techniques and Form Handling using PHP:** HTTP & HTTP2 Basics, Super Global Variables, Processing Forms, Setting Response Headers, State Management Techniques in PHP, Form validation using Regular Expressions.	10	18
III	**Accessing Relational Databases using PHP and Responsive Web Application Development using AJAX and PHP:** Using PHP to access Databases, Relational Databases and SQL, PHP Data Objects (PDO), MySQLi Object Interface. Introduction to AJAX, PHP and AJAX Example, AJAX Suggest and Autocomplete, AJAX Data Grid, Introduction to PHP Web Sockets.	10	18

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IV	**Accessing NoSQL Databases using PHP and Working with XML and PHP:** Introduction to No SQL Databases, Using PHP to access No SQL Databases, MongoDB Database and its configuration, MongoDB Basics, Accessing MongoDB database using PHP and CRUD Operations. XML: Introduction to XML, Generating XML, Parsing XML, Parsing XML with DOM, parsing with SimpleXML, Transforming XML with XSLT. Web Services: REST Clients, XML – RPC.	10	16
V	Web Techniques and Form Handling using PHP Accessing Relational Databases using PHP Accessing NoSQL Databases using PHP Working with XML and PHP Responsive Web Application Development using AJAX and PHP	NA	**30 Marks (CEC)**

4. Pedagogy:

- ICT enabled Classroom teaching
- Cotemporary Case study
- Practical/live assignments
- Interactive classroom discussions

5. Evaluation:

Students shall be evaluated on the following components:

	Internal Evaluation	(Internal Assessment-50 Marks)
A.	• Continuous Evaluation Component	30 marks
	• Classroom Presence & Participation	10 marks
	• Class Quiz	10 marks
B.	**Mid-Semester Examination**	**(Internal Assessment-30 Marks)**
C.	**End–Semester Examination**	**(External Assessment-70 Marks)**

6. Reference Books:

1. Kevin Tatroe, Peter MacIntyre, Rasmus Lerdorf: Programming PHP - Creating Dynamic Web Pages, 3rd Edition, Kindle Edition, O'REILLY Publication.
2. David Sklar and Adam Trachtenberg: PHP CookBook - Solutions and Examples for PHP Programmers, 3rd Edition, O'REILLY Publication.
3. Christian Darie, Brinzarea Bogdan, Filip Chereches-Tosa, Mihai Bucicia: AJAX and PHP: Building Responsive Web Applications, Kindle Edition, Packt Publishibng.
4. Matt Doyle: Beginning PHP 5.3, Wrox Publication, 2010.

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5. Steve Francia: MongoDB and PHP, O'Reilly Media Publication.

7. List of Journals/Periodicals/Magazines/Newspapers/Web resources, etc.

1. http://web-algarve.com/books/MySQL%20&%20PHP/PHP%20Cookbook,%203rd%20Edition.pdf [PHP basics and Examples]
2. https://www.w3schools.com/pHP/default.asp [For Basics of PHP]
3. https://www.tutorialspoint.com/php/index.htm [For State Management techniques]

8. MOOC:

- Charles Russell Severance: Web Applications for Everybody University of Michigan: :www.coursera.org/specializations/web-applications