

GUJARAT UNIVERSITY
K. S. SCHOOL OF BUSINESS MANAGEMENT
M.Sc. IN COMPUTER APPLICATIONS AND INFORMATION TECHNOLOGY
[Five Years' (Full-time) Integrated Degree Course]

Sixth Semester M.Sc. (CA & IT)
KS_C_SE-361 Advance Web Technology

3 credit course

Objective:

The goal of this subject is to provide students with the knowledge and ability to write computer scripts using PHP, a server-side scripting language commonly used on the web to interact with and dynamically generates HTML code.

UNIT I: **(20%)**

- **Building blocks of PHP:-** Basic syntax, Variables, Data Types, Operators and expressions, Constants.
- **Flow Control:** - Switch flow, Loops, Code Block, Sending data to the browser.
- **Working with Arrays:** - Arrays, Creating array, Array related Functions. Working with Function, Function, Calling Function, Defining Function, Returning the Values from user defined function, Variable Scope, Argument. Working with Strings, Date and Time
- **Functions:** - formatting String with PHP, Date and Time Function, String Manipulation and Investigating Strings with PHP and image related function.

UNIT II: **(20%)**

- **Working with Forms:** - Creating form, handling form, validating form data, Accessing form data, use get and post method, use of Hidden fields to save State, Redirecting user, file Upload and Sending Mail on Form Submission.
- **Understanding the Database Design Process:** - The importance of good database design, Types of Table Relationship, Understanding Normalization
- **Learning Basic SQL Command:** - Table Creation, Insert row, Select Command Using Where Clause, Update and Delete Command, Replace Command, String Function, Date and Time Functions, Stored Procedures, Join, Indexing and Sorting query.
- **Using My SQL with PHP:** - connecting to My SQL and selecting the database, executing simple queries, retrieving query results, counting return Records, updating, Record Addition, Viewing Record, and Deletion Record with PHP

UNIT III: **(20%)**

- **Working with files:** - Include Files with INCLUDE, creating and deleting files, opening a file for reading, writing or Appending, Reading from files, Validating Files. Working with file uploading.

- **Directories:** - Open Pipes to and from Process using Popen(), Running command with Exec(), Running Command with System() or Passthrough(). Working with Cookies and session
- **User Session:** - Introduction of Cookie, Setting a Cookie with PHP, Introduction of Session, Improving Session Security, Starting a Session, Working with Session Variables, Passing Session Id in the query String, Destroying Session and Unsetting Variables

UNIT IV: **(20%)**

- **Introduction:** - auto loading objects, Class, Extends, Constructs, Scope Resolution Operator, Parent, serializing object.
- **The magic method:** - sleep and awake, reference inside the constructor, comparing objects. Visibility, overloading, object interface, pattern, magic method, reflection, extending exception.

UNIT V: **(20%)**

- **Error Handling and Debugging:** - General error types and debugging, displaying PHP errors, Adjusting Error Reporting, Creating Custom error handler, PHP debugging techniques, SQL and MySQL debugging techniques.
- Introduction of [SQL injection](#) and how to prevent it.

Recommended Lecture Scheme: Approximately 45 hours of classroom teaching,

Recommended Practical Scheme: Not Applicable

Assignment: One assignment every month.

Text Books:

1. Begging PHP 5
By Wrox
2. PHP MySQL and Apache, SAMS Teach Yourself
By Julie C. Meloni, Pearson Education

Reference Books:

1. PHP and MySQL for dynamic Web Sites
By Larry Ullman, Visual Quickpro Guide, Second Edition
2. Programming PHP
By Rasmus Lerdorf, Kevin Tatroe, Peter MacIntyre.