



UNIVERSITY WITH A PURPOSE

Format No. QSP/7.1/01.F01 (B)

Issue No. 05, Rev. No. 5, Dated: Jan 1, 2017

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

School of Computer Science

Dehradun

COURSE PLAN

Programme : B. Tech CSE-All Branches

Course : Web Technologies through PHP Lab

Subject Code : CSEG2111

No. of credits : 1

Semester : IV

Session : Jan 2019- June19

Batch : 2017-21

Prepared by : Dr. Shamik Tiwari

Email : shamik.tiwari@ddn.upes.ac.in

Approved By

HOD

UPES Campus

“Energy Acres”

P.O. Bidholi, , Dehradun

Tel : +91-135-2770137

Fax : +91 135- 27760904

COURSE PLAN

A. PREREQUISITE:

- a. HTML
- b. PHP

B. PROGRAM OUTCOMES (POs) and PROGRAM SPECIFIC OUTCOMES (PSOs) for _____:

B1. PROGRAM OUTCOMES (POs)

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

B2. Program Specific Outcomes (PSOs)

1. Perform system and application programming using computer system concepts, concepts of Data Structures, algorithm development, problem solving and optimizing techniques,
2. Apply software development and project management methodologies using concepts of front-end and back-end development and emerging technologies and platforms.
3. -----to be made for each vertical-----

COURSE OUTCOMES for Web Technologies Through PHP Lab: At the end of this course student should be able to

CO1: Write the programs using server side scripting Language i.e. PHP

CO2: Know how to use PHP editor (Eclipse) and how to debug the program

CO3: Learn how to deploy a PHP program to develop a Web based applications

CO4: Learn the concept of database (MySQL) connectivity with PHP programs

CO5: Solve the real time applications

CO6: Learn the Basic PHP concepts, object oriented paradigm, database connectivity, sessions & cookies.

Table: Correlation of POs and PSOs v/s COs

PO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	-	-	-	-	-	-	-				-	-	-
CO2	-	-	1	-	-	2	-	-	-				-	-	-
CO3	-	-	-	-	-	1	1	-	-				-	-	-
CO4	-	-	-	-	-	-	-	-	-				1	1	-
CO5								-					2	2	-
CO6													2	2	

1: Slight (Low)

2: Moderate (Medium)

3: Substantial (High)

C. PEDAGOGY

1. Power Point Presentation,

2. Experimental learning with continuous evaluation

D. COURSE COMPLETION PLAN

Total Lab sessions	10
Total Viva	03

One Session =120 minutes

E. EVALUATION & GRADING

Students will be evaluated continuously throughout the course based on the following:

- | | | |
|-------------------------|---|-----|
| 1) Performance & Record | - | 50% |
| 2) Viva Voce | - | 50% |

F1. Performance & Record: WEIGHTAGE - 50%

. The lists of activities performed under the experiments are detailed clearly in Section-F. F2F experiments have 100% weightage.

Experiment Evaluation (10 marks per experiment)	
Algorithm Design	3 Marks
Coding Syntax	2 Marks
Execution / Bug Finding	2 Marks
Records (submitted before the very next turn.)	3 Marks

F2. Viva Voce: WEIGHTAGE - 50%

The preparation of the students would be evaluated based on viva-voce or quiz examination in periodic schedules.

It is mandatory for the students to attend the above said continuous evaluation. Students who do not attend will lose their marks. Continuous Internal Assessment Record Sheet will be displayed at the end of the semester.

F3. GRADING:

The overall marks obtained at the end of the semester comprising the above two mentioned shall be converted to a grade.

Student(s), who have met the qualifying criteria of individual practical subject but not met qualifying criteria of SGPA, will not be allowed to re-appear for improvement. Students, who wish to re-appear in the practical subject, shall be required to pay the prescribed fee per subject as notified by the University. The student with Grade “F” only will be eligible to *repeat continuous evaluation* of that respective practical subject (s) during summer vacation (June-July).

Grade shall be awarded on the performance of the student(s). The Grade will be capped as per the rules mentioned in student Bulletin. There will be no capping of SGPA for the students re-appeared for Practical Subject. All Other rules and regulations such as requirement of passing, etc. will remain same as mentioned in rules & regulations.

F. DETAILED SESSION PLAN

EXPERIMENT1:

Title: Introduction to Web Development HTML & CSS

a. Setup PHP development on Eclipse, Creating & Debugging PHP projects

- Eclipse Installation – All in one, PDT runtime, installing a debugger, running the code inside the web server
- Install the local web server
- Install the PHP engine
- Create & run PHP project – Understanding Debug view, The PHP debug perspective – the variable view, the breakpoints view, the editor view, the console view, the debug output view, and the browser output view
- Installing & setting up PDT (PHP development tools) – Setup PHP servers, setup PHP executables, Debug web applications

b. Practice of HTML & CSS

a. general tags

<Html>, <head>, <body>, <h1>,
,<p>,<header>, <label> etc...

<table> <tr>,<td>,<th> with attributes

<a>-for hyper reference and its attributes

Division tag <div>

, <a href>, <form>, <object> , <option>

Etc..

b. input tag <input>,<button>

i. Different input type and their attributes

ii. Design html pages for login and new user registration page.

Note: use appropriate input type for different fields, hyper references and proper naming conventions.

c. CSS

- CSS Syntax
- CSS Selector
- Id selector
- Class Selector

- Grouping selector
- Using Text properties, page properties, table, etc. as per need of application

EXPERIMENT-2:

Title: WEB PAGE DESIGN

1. Plan the application mentioned in Experiment discussion section.
2. Design the html pages using CSS required for application.

Note: Use appropriate input type for different fields, hyper references and proper naming conventions.

EXPERIMENT-3:

Title: PHP BASICS: Conditional Control Structures & Functions

1. Design a page having a text box (set maxlength=5) for input and a submit button and write a script
 - a. to print whether entered number is even or odd.
 - b. to print table of entered number.
 - c. to find sum of square of digits of entered number.
2. Design & write a script for an arithmetic calculator.
3. Write a function to swap two string values using: i. call by value ii. Call by reference
4. Take two positive numbers from user (use input) and print
 - a. all the numbers divisible by 5 in between entered no.
 - b. all prime numbers in between entered no.
5. Write a program to take input as seat number (of sleeper coach of Indian train) and identify the type of seat i.e. upper, middle, lower, side lower and side upper using switch case.

EXPERIMENT-4,5:

Title: STRING & ARRAY

1. Write a program to find out the largest and smallest number in an entered array without using sorting.
2. Design a form having a text box for name, option buttons for gender and a submit button.
3.
 - i. Write a script to extract first name, middle name and last name from entered name.
 - ii. Write a script to count the number of vowels and white spaces.
 - iii. Write a script to convert entered name into upper case.
 - iv. Display name along with title.

Hint: entered name: Sachin Tendulkar, Gender: M

Output: Mr. Sachin Tendulkar

- v. Write a script to check whether entered name is group of character only.
4. Design and write script for fee calculation for course selected by student. Apply it to Innovative Learning Center application.

[Fee = Tuition fee (Compulsory) + Travelling (Optional) + Hostel fee (Optional) + Mess fee (Optional) + Library (Compulsory) + id card (Compulsory) + Exam fee (Compulsory) + other]

5. Write a function that accepts an array of numbers and sorts all even number first, all odd numbers second in ascending order and then return the array example :

input array: 1,3,2,5,8,2,7,4,9,6,11

output array: 2,2,4,6,8,1,3,5,7,9,11

6. Create an array to hold 5 subject marks of a student.

Student name:

Student Roll no.

Subject: marks:

Math's 40

Science 60

English 90

Language 64

Moral science 82

Total: average: grade:

The grade is calculated as follows:

90-100	o
70-89	a
60-69	b
50-59	c
<50	f

7. Write a function to calculate the average for a student. The function should return the average. Based on the average the grade is assigned.
8. Using multidimensional array create a contact list containing name, email and contact no.

EXPERIMENT-6:

Title: FILE HANDLING

1. (a). Write a script to store the roll no, name, age, address, phone no of students into the file called studentdetails.txt and the records should be stored in the format given below

101:priya:19:bangalore

102:prem:20:chennai

103:anu:18:chennai

104:john:21:bangalore

105:amit:20:mumbai

- (b). write a function to retrieve the student information from the studentdetails.txt file.

- (c). write a script to display all the students who belong to the city 'bangalore' from the studentdetails.txt file.

2. Write a script to copy content of one file into another.

3. Write a script to perform file upload operation and then read the data from the uploaded file.

4. Write a script to take information from registration page of Innovative Learning Center and write it to a student_details.txt file.
5. Create Syllabus of any course of Innovative Learning Center using File handling.

EXPERIMENT-7:

Title: FORM VALIDATION & EVENT HANDLING USING JAVASCRIPT

1. Add JavaScript to forms of Innovative Learning Center.
2. Perform form validations of Innovative Learning Center.
3. Perform Event handling in forms of Innovative Learning Center.

EXPERIMENT-8:

Title: OOPS & EXCEPTION HANDLING

1. Create a class Book with member functions setPrice(), getPrice(), setTitle(), getTitle(). Make objects for class book to set price & title of books. And then print the same.
2. Create one constructor for Book class to initialize price and title for the book at the time of object creation.
3. Create a web application that takes the faculty feedback from the student and stores it in a file. Given the subject name and the faculty name, the application has to display the average feedback for each criterion and the comments given by all students.

The student has to enter the feedback form with the following details: faculty name, subject, date, student id, student name, feedback rating, and comments.

Create a class called as feedback to hold the details as mentioned above. when the student clicks the “submit feedback” button, the details has to be stored in the feedback object after which the details are retrieved and stored in a file, when the faculty name and the subject are given, feedback summary is displayed as follows student notebook php core . Use it to Innovative Learning Center.

4. Create a class employee with id, name, age, gender, designation and salary. write a function display employee details() to accept an employee object and display the details of the employee. designation of the employee can be either “programmer”, “project lead” or “team member”. the function should throw a design proper exception (with a meaningful message) if the designation of an employee is not any of these.

Write a function called view employee details (), which calls the display employee details() method in question 1. modify the display employee details () function to propagate the designation improper exception that is handled in view employee details() function that displays a message called “sorry!!!! employee details cannot be viewed”.

EXPERIMENT-9:

Title: Database Handling using PHP, Session & Cookies

9. Create database and tables required in Innovative Learning Center.
10. Write Scripts for all the tasks which require database handling in Innovative Learning Center.
11. Create a web form in PHP that will use the concept of Session and redirect the user to another web page based on some condition.
12. Write a script
 - a. to create & use session variable(s)
 - b. to set & display cookies.
13. Apply Session and Cookies in your project. [Compulsory to apply at sign in part]

EXPERIMENT-10:

Title: AJAX and Java script

1. Write JavaScript to validate the following fields of the above registration page.

- a. Name (Name should contains alphabets and the length should not be less than 6 characters).
 - b. Password (Password should not be less than 6 characters length).
 - c. E-mail id (should not contain any invalid and must follow the standard pattern name@domain.com)
 - d. Phone number (Phone number should contain 10 digits only).
2. Write a script to implementation of following using AJAX concept
- a. Creating the XMLHttpRequest Object.
 - b. Opening the XMLHttpRequest Object.
 - c. Handling downloaded data
 - d. Display the content of the file.

G. GUIDELINES:

Cell Phones and other Electronic Communication Devices: Cell phones and other electronic communication devices (such as Blackberries/Laptops) are not permitted in classes during Tests or the Mid/Final Examination. Such devices **MUST** be turned off in the class room.

E-Mail and online learning tool: Each student in the class should have an e-mail id and a password to access the e-labs system regularly. Regularly, important information – Date of conducting class tests, guest lectures, via online learning tool. The best way to arrange meetings with us or ask specific questions is by email and prior appointment. All the assignments preferably should be uploaded on online learning tool. Various research papers/reference material will be mailed/uploaded on online learning platform time to time.

Attendance: Students are required to have **minimum attendance of 75%** in each subject. Students with less than said percentage shall **NOT** be allowed to appear in the end semester examination.

Passing criterion: Passing criterion: If the batch size is upto 30, Grading shall be done on the basis of absolute grading system

- If the batch size is more than 30, the grading will be done based on Relative Grading System

Both in Absolute and Relative Grading System passing criteria will be:

- For UG-Students: Scoring less than 35 absolute marks in individual course either in end semester examination or as composite score shall be awarded as 'F'
- For PG-Students: Scoring less than 40 absolute marks in individual course either in end semester examination or as composite score shall be awarded as 'F'
- For UG & PG: Students scoring 85 marks and above as composite score (IA+MS+ES) shall be awarded as the highest grade as 'O' i.e., Outstanding (on 10 point Scale) and 'A' i.e., Outstanding (on 4 point Scale)

Course outcome assessment: To assess the fulfilment of course outcomes two different approaches have been decided. Degree of fulfillment of course outcomes will be assessed in different ways through direct assessment and indirect assessment. In Direct Assessment, it is measured through quizzes, tests, assignment, Mid-term and/or End-term examinations. It is suggested that each examination is designed in such a way that it can address one or two outcomes (depending upon the course completion). Indirect assessment is done through the student survey which needs to be designed by the faculty (sample format is given below) and it shall be conducted towards the end of course completion. The evaluation of the achievement of the Course Outcomes shall be done by analyzing the inputs received through Direct and Indirect Assessments and then corrective actions suggested for further improvement.