

# **UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR**

## **Lab Manual**

**Title of Course: Major Project**  
**L-T –P Scheme: 0-0-30**

**Course Code: MCA691**  
**Course Credits: 26**

Project: an activity where the participants have some degree of *choice* in the outcome. The result is complete and functional, that is, it has a beginning, middle and end. Usually, it spans multiple lab periods and requires work outside scheduled lab periods. Since there are choices in implementation, *design* is inherently a component of a project. A project is inherently different from an *analysis* or *exercise*, in which the solution has a predictable form. Projects span a wide variety of possibilities: design and build, identify a system, do a forensic analysis, evaluate a product or assess some environmental situation.

### **Program Objective 1**

Graduates shall make their way to the society with proper scientific and technical knowledge in mechanical engineering.

### **Program Objective 2**

Graduates shall work in design and analysis of mechanical systems with strong fundamentals and methods of synthesis.

### **Program Objective 3**

Graduates shall adapt to the rapidly changing environment in the areas of mechanical engineering and scale new heights in their profession through lifelong learning.

### **Program Objective 4**

Graduates shall excel in career by their ability to work and communicate effectively as a team member and/or leader to complete the task with minimal resources, meeting deadlines.

### **Program Outcomes:**

1. Ability to apply knowledge of mathematics, science and mechanical engineering fundamentals for solving problems.
2. Ability to Identify, formulate and analyze mechanical engineering problems arriving at meaningful conclusions involving mathematical inferences.
3. Ability to design and develop mechanical components and processes to meet desired needs considering public health, safety, cultural, social, and environmental aspects.
4. Ability to understand and investigate complex mechanical engineering problems experimentally.
5. Ability to apply modern engineering tools, techniques and resources to solve complex mechanical engineering activities with an understanding of the limitations.
6. Ability to understand the effect of mechanical engineering solutions on legal, cultural, social, public health and safety aspects./li>

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7. Ability to develop sustainable solutions and understand their impact on society and environment.
8. Ability to apply ethical principles to engineering practices and professional responsibilities.
9. Ability to function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.
10. Ability to comprehend, design documentation, write effective reports, make effective presentations to the engineering community and society at large.
11. Ability to apply knowledge of engineering and management principles to lead teams and manage projects in multidisciplinary environments.
12. Ability to engage in independent and life-long learning in the broad context of technological changes and advancements.

# **UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR**

## **Course Description**

**Title of Course: PHP, .NET Lab**

**Course Code: CS692**

**L-T-P scheme: 0-0-6**

**Course Credit: 4**

### **Objectives:**

1. To learn and understand Web design. It is a process of conceptualizing, planning, and building a collection of electronic files that determine the layout, color, text styles, structure, graphics, images, and use of interactive features that deliver pages to your site.

### **Learning Outcomes:**

1. Apply critical thinking and problem solving skills required to successfully design and implement a web site.
2. Demonstrate the ability to analyze, identify and define the technology required to build and implement a web site.
3. Apply critical thinking and problem solving skills required to successfully design and implement a web site.
4. Demonstrate the ability to analyse, identify and define the technology required to build and implement a web site.
5. Demonstrate knowledge of artistic and design components that are used in the creation of a web site.
6. Utilize and apply the technical, ethical and interpersonal skills needed to function in a cooperative environment.

### **Course Contents:**

1. Concepts of networking, Web and HTML. Introduction with Web, Network, Website, Server, Client side, Server side and other terms related to basic website designing concept. Introduction with HTML language.
2. Introduction with .net. Introduction of Microsoft .net, Explain features and phases of the object-oriented approach. (C#) Basic Syntax, Reading and writing to a console, Data Types, Type Conversion, Variables, Constants.
3. SQL Server, Introduction with SQL Server, Role of a Database Server, SQL language, Working With Database (Table concepts), SQL query (Data Definition Language, Data Manipulation Language, Data Control Language)
4. Database Integration in ASP.NET Connectivity between web pages and data base with the help of Internal and external data source.
5. Hands on C# language. Introduction of C# and programing basic of C#, Programs on different problems in C#. Introduction with core PHP, Core PHP introduction and programing concepts. Quick start with PHP programs. Database Integration in PHP.

### **Exercises that must be done in this course are listed below:**

Exercise No.1: Create a form in HTML for entering value for some specific fields. (Registration Page)

Exercise No.2: Create table in SQL for storing data of registration page. (Using sql query)

Exercise No.3: Create a webpage to show the data which is entered in sql tables through registration page.

Exercise No. 4: Create a web page to file upload option, so user can upload document on website.

Exercise No. 5: Create a webpage to show the uploaded document.

Exercise No. 6: assemble all the web page to create a website for a specific organization. (Minor project).

Exercise No. 7: Create master page for previous developed pages.

Exercise No. 8: Apply validators for all fields which are used in previous developed pages.

Exercise No. 9: Major project.

**Text Book:**

1. Learning Web Design, Book by Jennifer Niederst Robbins
2. NET 4.5 Programming Black Book, Kogent learning solutions inc.
3. Professional PHP 6, **Publisher:** Wiley

**Recommended Systems/Software Requirements:**

1. Desktop PC with minimum of 166 MHZ or faster processor with at least 1 GB RAM and 160 GB disk space.
2. Visual studio 2012, Microsoft sql server 2008 R2