Pokhara University
Faculty of Management Studies

Course Code: PRJ 181	Credits:2[Hrs]
Course Title: Project I	Total Lectures: 32 hours
Nature of the Course: Theory	Program: BCSIT
Level: Bachelor	Year: I Semester: II

1. Course Description

This course equips students with essential web development skills using HTML, CSS, and JavaScript. Students begin by learning to structure web pages with HTML, followed by enhancing them with CSS for styling and layout control to create visually appealing and responsive designs. JavaScript is introduced to add interactivity and dynamic functionality, enabling the creation of engaging user experiences. Advanced topics such as form validation, DOM manipulation, and AJAX requests are also covered, providing the tools needed for real-world web development challenges. By the end of the course, students will have a solid understanding of web development principles and practical experience in creating interactive, responsive websites, preparing them for more complex projects in future semesters.

2. General Objectives

- Understand the fundamental concepts and structures of HTML, CSS, and JavaScript for web development.
- Develop skills in creating visually appealing and responsive web designs using CSS.
- Gain proficiency in using JavaScript to add interactivity and dynamic functionality to web pages.

3. Laboratory Work

It builds the foundation for how to create simple static web pages. Hence, this course requires a lot of programming practice so that students will be able to develop good logic-building and program-developing capabilities which is essential throughout the course.

Some important contents that should be included in project work are:

1. Creating a simple static website with 4 pages, using HTML5 (include all tags included in HTML and HTML5
2. Create a simple image gallery using CSS
3. Create a responsive web page using the box model
4. Create a form with all the elements and validate it using client-side scripting
5. Create a user registration form using HTML 5 and validate it using JavaScript
6. Creating jQuery Slider and Image Gallery
7. Use jQuery date picker and sort
8. Work with JSON data and make AJAX requests using fetch API or XMLHttpRequest
9. The general concept of React, Angular, or Vue.js for building web application

- Case discussion
- Group discussion
- Practical works,
- Demonstration and discussion
- Project-based Learning
- Self-Directed learning
- industry insights and case study
- Case readings, Case question and answer
- Simulation
- Tutorial

5. Evaluation system, Project timeline and Student's Responsibility

SN	Evaluation Details	Day for Evaluation (48 hrs.)	Marks
1.	Introduction to Project I	Project Seminar (Introduction)	5 marks for attendance and submission of topic on time
2.	Topic finalization	Day 2-4 (Discussion on project topic, Research)	
3.	Proposal Defense	Day 6-10 (Preparation for proposal defense)	5
4.	Mid- Term Defense	Day 11 (Presentation, printed copy of project proposal- 2 pcs, Demo)	15
5.	End- Term Defense	Day 24 (Presentation, Demo 60% of the work is to be completed)	25
6.	Final Defense	Day 48 (Final Project presentation, Demo and Q&A)	50
Total			100

Project Work Phase:
The entire project work shall be divided into three phases and evaluation shall be done accordingly.

Phase	Description
Phase 1: Conceptual Framework and Proposal	**Team formation:** Students form teams of 2-4 members based on their interests, skills, and the nature of the project. **Conceptual Framework:** Teams develop a conceptual framework for their project. This should include: • **Problem statement:** Clearly define the problem the project aims to address. • **Objectives:** Outline the goals and expected outcomes. • **Scope:** Define the boundaries and limitations of the project. • **Significance:** Explain the relevance and importance of the project. • **Methodology:** Briefly describe the approach and methods to be used. **Documentation** Teams document the conceptual framework in the format provided by

	the department for project proposals. **Presentations** Teams present their proposal in front of the examiner, providing a clear overview of their project
Phase 2: Progress Report	**1. Progress Report** Teams demonstrate the progress made in the design phase, including. • **Overall system design:** Present the architecture of the system • **Architectural design:** Detail the structure and components of the system • **Validation scheme:** Explain how the system's functionality will be validated **2. Documentation of Progress:** Teams document the progress made, highlighting key design decisions and any challenges encountered. **3. Presentation to Internal Evaluator Committee:** Teams present their progress report to the internal evaluator committee for feedback and assessment.
Phase 3: Final Presentation and Defense	1. **Completion of all Phase:** Ensure that all phases of the project, including design, development, and testing, are completed. 2. **Product Output: Teams** develop the final output of their product using web technology. This could be a web application, platform, or any relevant web-based solution. 3. **Oral Defense:** • Teams present the final product and its features to the external examiner. • Conduct an oral defence, addressing questions from the examiner regarding design choices, implementation, and overall project execution 4. **Use web Technology**: Emphasize the incorporation of web technology in the project. This could include technologies like HTML, CSS, JavaScript, and relevant frameworks for web development 5. **Submission of Final Documentation:** Provide comprehensive documentation covering all aspects of the project, from the initial proposal to the final product.

By following these three phases, students can systematically plan, execute, and present their project work, with a focus on utilizing web technology for effective solutions

Project Evaluation Criteria

The marks of Mid-term, End- term and Final Defense are distributed as:

1. Report 10 %
2. Presentation 5%
3. Demonstration 15%
4. Q&A 15%
5. Teamwork 5%

Note: There can be three members in the final defense and the marks are adjusted on an average basis: (Project supervisor, Program Coordinator and External)

The project document shall include the following items:

- Project Team members (At least 2 and a maximum of 3)
- Project supervisor(s)
- Technical description of the project.
- Project Analysis, Design, Coding, Testing and Implementation details.

Student's Requirements

Each student must secure at least 45% marks separately in both internal assessment and practical evaluation with 80% attendance in the class in order to appear in the Semester End Examination. Failing to get such a score will be given NOT QUALIFIED (NQ) to appear in the Semester-End Examinations. Students are advised to attend all the evaluation criteria and complete all the assignments within the specified period. ***Students are required to complete all the requirements defined for the completion of the course.***

6. Prescribed Books and References

Text Books:

Niederst Robbins, J. (2018). *A beginner's guide to HTML, CSS, JavaScript, and web graphics* (5th ed.). O'Reilly Media.

Reference Books:

1. Holzner, S. (2001). *HTML black book*. Dreamtech Press
2. Dreamtech Press. (2009). *Web technologies black book*
3. Knuckles, R. (2011). *Web applications: Concepts and real world design*. Wiley-India.
4. Deitel, P. J., & Deitel, H. M. (2012). *Internet and world wide web how to program* (5th ed.). Pearson

Report Contents:

1. Prescribed content flow for the project proposal

1. Introduction
2. Problem Statement
3. Objectives of Study
4. Methodology
   a. Requirement Identification
   - Study of existing system
   - Requirement Collection

   b. Feasibility Study
   - Technical
   - Operational
   - Economic

   c. High Level Design of System (system flow chart/ methodology of the proposed system/ working mechanism of proposed system)
5. Gantt Chart (showing the project timeline)
6. Expected Outcome
7. References

2. Prescribed content flow for the project report

1. Cover & Title Page
2. Certificate Page

- Supervisor Recommendation
- Internal and External Examiners' Approval Letter

3. Abstract Page
4. Acknowledgements
5. Table of Contents
6. Abbreviations
7. List of Figures
8. List of Tables
7. Main Report
8. Appendices (Screen Shots/ Source Codes/ Supervisor Visit Log Sheets)
9. References

3. Prescribed Chapters in Main Report

Chapter 1: Introduction

1.1. Background of the Study
1.2. Statement of the Problem
1.3. Objectives of the Study
1.4. Scope of the Study
1.5. Limitations of the Study

Chapter 2: Review of Literature

2.1. Description of fundamental theories, general concepts and terminologies related to the project
2.2. Review of the similar Projects and Theories

Chapter 3: System Analysis and Design

3.1. System Analysis
3.1.1. Requirement Analysis
- Functional Requirements
- Non Functional Requirements

3.1.2. Feasibility Analysis
- Technical
- Operational
- Financial
- Schedule

3.1.3. Data Modeling
3.1.4. Process Modeling
3.2. System Design
3.2.1. Interface Design (UI Interface / Interface Structure Diagrams)

Chapter 4: Implementation and Testing

4.1. Implementation
4.1.1. Tools Used (Tools, Programming languages, Database platforms)
4.1.2. Implementation Details of Modules (Description of procedures/functions)
4.2. Testing
4.2.1. Test Cases for Unit Testing
4.2.2. Test Cases for System Testing

Chapter 5: Conclusion and Future Recommendations

5.1. Lesson Learnt
5.2. Conclusion

5.3. Recommendations

Appendices (Screen Shots/ Source Codes/ Supervisor Visit Log Sheets)

Citation and Referencing

The listing of references should be listed in the references section. The references contain the list of articles, books, that are cited in the document. The books, articles, and others that are studied during the study but are not cited in the document can be listed in the bibliography section.

Report Format Standards

1.Page Number

The pages from certificate page to the list of tables/figures should be numbered in roman starting from i. The pages from chapter 1 onwards should be numbered in numeric starting from 1. The page number should be inserted at bottom, aligned center.

2. Page Size and Margin

The paper size must be a page size corresponding to A4. The margins must be set as 6 Top = 1; Bottom = 1; Right = 1; Left 1.5

3. Paragraph Style

All paragraphs must be justified and have spacing of 1.5.

4. Text Font of Document

- The contents in the document should be in Times New Roman font
- The font size in the paragraphs of document should be 12 E. Section Headings
- Font size for the headings should be 16 for chapter title, 14 for section headings, 12 for the sub-section headings. All the headings should be bold faced.

5. Figures and Tables

Position of figures and tables should be aligned center. The figure caption should be centered below the figure and table captions should be centered above the table. All the captions should be of bold face with 12 font size.