5	Signal Handling
6-7	I/O Multiplexing
8-9	Socket Options, Getsockopt and stockpot functions, socket states, generic socket options
10	Elementary UDP sockets, TCP and UDP oriented client server applications
11	Elementary name and Address conversions, DNS, socket functions
12	Daemon Processes
13-14	Multithreaded server
15	Raw sockets

Assessment Methods

Written tests, assignments, quizzes, presentations as announced by the instructor in the class.

Keywords

Connection oriented sockets, connection less sockets, advanced sockets

Project Work / Dissertation (BHCS18D) Discipline Specific Elective - (DSE) Credit: 06

Course Objective

The students will undergo one semester of project work based on the concepts studied in a subject of their choice. The objective is to train the students for the industry by exposing them to prototype development of real life software.

Course Learning Outcomes

On successful completion of this course, a student will be able to:

1. develop a project plan based on informal description of the project.
2. implement the project as a team.
3. write a report on the project work carried out by the team and defend the work done by the team collectively.
4. present the work done by the team to the evaluation committee.

Unit 1

The students will work on any project based on the concepts studied in core/elective/ skill based elective courses. Specifically, the project could be a research study, or a software development project.

Unit 2

Project Group Organization/Plan

- Students will initially prepare a synopsis (500 words) and submit it to their respective department.
- For a given project, the group size could be a maximum of four (04) students.
- Each group will be assigned a teacher as a supervisor who will be responsible for their lab classes.
- A maximum of four (04) projects would be assigned to one teacher.

Unit 3

Project Evaluation

- 100 marks for end semester examination comprising Viva/presentation (50 marks) and project report evaluation (50 marks): to be awarded jointly by the examiner and supervisor / mentor.
- 50 marks for continuous evaluation (to be awarded by the supervisor/mentor). Work carried out in each lab session will be assessed out of five marks (zero for being absent). Finally, the marks obtained will be scaled out of a maximum of 50 marks. For example, if

30 lab sessions are held in a semester, and a student has obtained an aggregate of 110 marks, then he/she will be assigned round (110/(30*5)) i.e. 37 marks.

- The students will submit only the soft copies of the report.
- The reports may be retained by the examiners.

Practical

Practical/discussion sessions based on the area of the project.

Teaching Learning Process

- Group Discussions
- Presentations by group of students for enhanced learning.

Assessment Methods

- Assignments, presentations, viva, quiz
- Internal assessment
- End semester exam

Keywords

Software Development, Project planning.

Web Design and development (BHCS19A) Skill-Enhancement Elective Course - (SEC)

Credit: 04

Course Objective

This course will introduce students to the fundamental concepts of web development. This course will equip students with the ability to design and develop a dynamic website using technologies like HTML, CSS, JavaScript, PHP and MySQL on platform like WAMP/XAMP/LAMP.

Course Learning Outcomes