**POs:**

|  |  |
| --- | --- |
| **PO 1** | **ENGINEERING KNOWLEDGE:**  Apply Knowledge of Mathematics, Science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems. |
| **PO 2** | **PROBLEM ANALYSIS:**  Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. |
| **PO 3** | **DESIGN / DEVELOPMENT OF SOLUTIONS:**  Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations. |
| **PO 4** | **CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS:**  Using research based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions |
| **PO 5** | **MODERN TOOL USAGE:**  Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. |
| **PO 6** | **THE ENGINEER AND SOCIETY:**  Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice. |
| **PO 7** | **ENVIRONMENT AND SUSTAINABILITY:**  Understand the impact of professional engineering solutions in societal and environmental context and demonstrate knowledge of and need for sustainable development. |
| **PO 8** | **ETHICS:**  Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice. |
| **PO 9** | **INDIVIDUAL AND TEAM WORK:**  Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings. |
| **PO 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. |
| **PO 11** | **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. |
| **PO 12** | **PROJECT MANAGEMENT & FINANCE:**  Demonstrate knowledge and understanding of engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects in multidisciplinary environments |

**PEOs:**

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| --- | --- |
| **PEO 1** | To prepare learners with a strong foundation in the area of Information Technology Required solving real life problems arising from software technology. **(Knowledge)(CURRICULAR)** |
| **PEO 2** | To prepare learners to be knowledgeable of the ethics, professionalism and cultural diversity in the work environment to meet applicable standards with continued motivation for research and development. **(Skills & Professionalism) [CO-CURRICULAR]** |
| **PEO 3** | To prepare learners to understand the need for lifelong learning with effective written and oral communication skills and to be able to readily adapt to new software engineering environments. **(Attitude, Presentation and Growth) [EXTRA CURRICULAR]** |

**PSOs:**

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| --- | --- |
| **PSO 1** | To develop the culture of augmenting existing technologies to create scalable IT solutions. |
| **PSO 2** | To combine various technologies like IoT, Cloud and Analytics to provide integrated solutions to real time problems of government /industries. |
| **PSO 3** | To master in molding any problem into a web/internet-based solutions. |

Web Programming:

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| --- | --- |
| **PO 1** | **ENGINEERING KNOWLEDGE:**  Apply Knowledge of Mathematics, Science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems. |
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| **PO 3** | **DESIGN / DEVELOPMENT OF SOLUTIONS:**  Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations. |
| **PO 4** | **CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS:**  Using research based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions |
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Implement interactive web page(s) using HTML

Create Responsive Web Design With CSS & Bootstrap

Design and develop web applications using JavaScript

Build Dynamic web site using server-side PHP Progrartumng and Database connectivity

Create web applications using Node.js

Demonstrate web application using Python web Framework-Django

Identify information security goals, and classical encryption techniques and acquire fundamental knowledge of the concepts of Symmetric cipher models.

Understand, compare, and apply different encryption and decryption techniques to solve problems related to confidentiality and Authentication

Apply the knowledge of cryptographic checksums and different digital signature algorithms to achieve authentication and create secure applications.

Understand Secure Programs, Program Errors, and Other Malicious Code and identify Objects to be Protected, and Use of Passwords for Additional Authentication

Information.

Apply network security basics, analyze different attacks on networks, and evaluate the performance of firewalls and security protocols like SSL, IPsec, and PGP.

Apply the knowledge of cryptographic utilities and authentication mechanisms to design secure application

Define operating System& understand the objective of an OS & their functions.

Describe Process, PCB & process management using scheduling Algorithm.

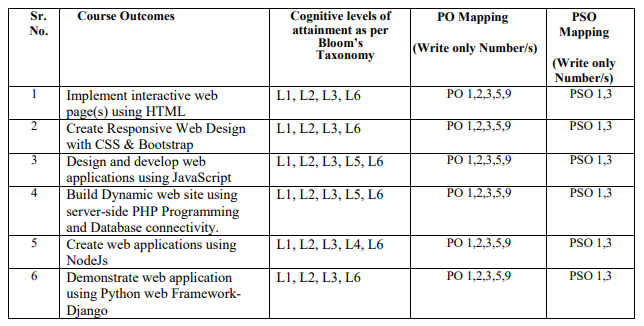
Evaluate the requirement for process synchronization and coordination handled by operating system.

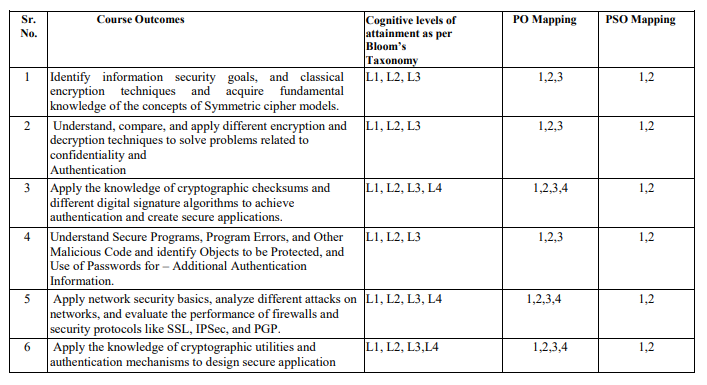
Describe and analyze the memory management and its allocation policies. Also knows the utilization of virtual me

Describe File Concepts, File Structure, and analyze file management techniques.

Identify use and evaluate the storage management policies with respect to different storage management technologies.

Web Programming:



Cryptography & Network Security:

Operating Systems:

