

DIPLOMA IN COMPUTER SCIENCE AND ENGINEERING LAB
FACILITIES

The department has well equipped laboratory and provide excellent facilities for learning.

SL. NO	COURSE CODE	NAME OF THE COURSE
1	PHYE-1006	APPLIED PHYSICS-I LAB
2	SLPC-1007	PROFESSIONAL COMMUNICATION-I LAB
3	DPCS-1008	COMPUTER FUNDAMENTALS LAB
4	CHEM-1009	BASIC CHEMISTRY LAB
5	SPYO1001	SPORTS AND YOGA
6	PHYE-1015	APPLIED PHYSICS-II LAB
7	SLPC-1016	PROFESSIONAL COMMUNICATION-II LAB
8	DPME-1017	WORKSHOP PRACTICE
9	DPCO-1018	FUNDAMENTAL OF ELECTRONICS DEVICE LAB
10	DPCS-1019	OPERATING SYSTEM LAB
11	DPCS-2004	COMPUTER PROGRAMMING & PROBLEM SOLVING LAB
12	DPCS-2005	COMPUTER HARDWARE AND MAINTENANCE LAB

13	DPCS-2011	DATA COMMUNICATION AND COMPUTER NETWORKS LAB
14	DPCO-2007	PRINCIPLES OF DIGITAL ELECTRONICS LAB
15	DPCS-2014	DATA STRUCTURES USING C LAB
16	DPCS-2012	RELATIONAL DATABASE MANAGEMENT SYSTEMS LAB
17	DPCS-2006	SOFTWARE ENGINEERING LAB
18	DPCO-2013	MICROPROCESSOR & ITS APPLICATION LAB
19	DPCS-2019	JAVA PROGRAMMING LAB
20	DPCS9001	DISRUPTIVE TECHNOLOGY LAB
21	DPCS-3011	PYTHON & DATA SCIENCE LAB
22	DPCS-3012	MOBILE COMPUTING LAB
23	DPCS-3008	COMPUTER GRAPHICS LAB
24	DPCS-3009	INTERNET & WEB TECHNOLOGY LAB
25	PDSS3008	PERSONALITY DEVELOPMENT & SOFT SKILLS
26	DPPE-9998	FIELD VISIT AND PRESENTATION OR MINOR PROJECT

The Department has the following sophisticated laboratories in the following semester:

I Semester:

- Computer Fundamental Lab
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Computer Fundamental Lab discusses about the basic input and output devices of computer and understand the basic knowledge of computer system and components of computer. In this students learn the need of different memory system in computer. Understand basic principles of Windows operating system. Access the Internet domain and also aware about the working of basic tools of MS-office-like MS-word, power-point, MS-excel and MS-Access. After this course students learn to working on MS-office and its different tools and also understand the working of MS-Word, MS-EXCEL, and MS-Power Point.

II Semester:

- Operating system Lab
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Operating System Lab introduces students to basic structure of operating systems, Kernel, user interface, I/O device management, device drivers, process environment, concurrent processes and synchronization, inter-process communication, process scheduling, memory management, deadlock management and resolution, and file system structures.

- **III Semester:**
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- Computer Programming Lab
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- The purpose of this course is to introduce to students to the field of programming using C language. The students will be able to enhance their analyzing and problem solving skills and use the same for writing programs in C
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- Computer Hardware and Maintenance Lab
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This course is designed to enable the students get a detailed knowledge of all the hardware components that assembled a computer and to understand the different interfaces required for connecting these hardware devices and also understand and applying the basics of troubleshooting of computer as well as printer and scanner.

- **Data Communication Lab**

Data communications refers to the transmission of digital data between two or more computers and a computer network or data network is a telecommunications network that allows computers to exchange data. Familiarize the student with basic taxonomy and terminology of the computer networking area, Allow the student to gain expertise in some specific areas of networking such as the design and maintenance of individual networks.

- **IV Semester:**

- **Data structures through C Lab**

- The course is designed to develop skills to design and analyze simple linear and non linear data structures. It strengthen the ability to the students to identify and apply the suitable data structure for the given real world problem. It enables them to gain knowledge in practical applications of data structures .

- **Java Lab**

- This Java course will provide you with a strong understanding of basic Java programming elements and data abstraction using problem representation and the object-oriented framework. As the saying goes, “A picture is worth a thousand words.” This course will use sample objects such as photos or images to illustrate some important concepts to enhance understanding and retention. You will learn to write procedural programs using variables, arrays, control statements, loops, recursion, data abstraction and objects in an integrated development environment.

- **Relational Data Base Management Systems Lab**

- In this course would examine data structures, file organizations, concepts and principles of DBMS's, data analysis, database design, data modeling, database management, data & query optimization, and database implementation. More specifically, the course introduces relational data models; entity-relationship modeling, SQL, data normalization, and database design. It would also introduce query coding practices using MySQL (or any other open system) through various assignments. Design of simple multi-tier client/server architectures based and Web-based database applications will also be introduced. Databases form the backbone of all major applications today – tightly or loosely coupled, intranet or internet based, financial, social, administrative, and so on. Structured Database Management Systems (DBMS) based on relational and other models have long formed the basis for such databases.
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V semester:

- Web Technology Lab
 - This course introduces the modern Web technologies used for the Web development. The topics include (although in some cases briefly): History of the Web, Hypertext Markup Language (HTML), Extensible HTML (XHTML), Cascading Style Sheets (CSS), and JavaScript. As the program progresses, students learn various aspects of Web design and development through courses emphasizing the workflow associated with the planning process, site design and the use of standard technologies, such as content management systems, to provide client solutions. Students also consider the business side of the Web development through courses in marketing and e-commerce, learning about current topics such as Web analytics and search engine optimization along with payments, catalogs and shopping carts. The use of scripting, JSP and databases is also included.
 - Mobile Computing Lab
 - Mobile computing and wireless communication are the most important technology and standard for data communication for various electronics systems for home and industry application. Students understand the various wireless data communication networks e.g. GSM, CDMA, GPRS, GPS and other accessing technologies of wireless data communications. This course students also learn about the adhoc and mobile adhoc networks basic working and call drooping algorithm of mobile adhoc networks. This course students also learn the working of mobile commerce application and aware about the structure of mobile commerce.
 - Computer Graphics Lab
 - Computer graphics is concerned with all aspects of producing images using a computer. It concerns with the pictorial synthesis of real or imaginary objects from their computer-based models. Computer graphics can be used in many disciplines. Charting, Presentations, Drawing, Painting and Design, Image Processing and Scientific Visualization. student will apply graphics concept for generating line, circle and also use in transformation and clipping, designing.
 - **VI Semester:**
 - Project Lab
 - By this course students get basic knowledge of software development phases and different approaches to develop the quality software. In last of this course students understand the different process of software engineering and models to design a software or application. In this course students also understand the different software testing process and techniques and different software quality assurance approaches and attributes.
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