



**Study Scheme: ICD Programme
(DCS-CDE)**

**Diploma in Computer Science and Engineering
Certificate in Data Entry and Word Processing
(2024 Batch onwards)**

Vision & Mission of Department

Vision

To achieve technical & research excellence in the field of Computer Science and Engineering with industrial & social perspective.

Mission

- To provide environment for imparting high quality technical education, skill development, research and development.
- To disseminate sound knowledge of recent Computer Technologies by organizing seminar/workshops/short-term courses.
- To develop interaction and collaboration with the industry.
- To facilitate Hand-on training to the students for promoting Self-Employment.

Program Outcomes (PO's) – (ICD-DCS-CDE)

- 1) Basic and Discipline specific knowledge:** Apply knowledge of basic Mathematics, Science and Engineering fundamentals and Engineering specialization to solve the Engineering problems.
- 2) Problem analysis:** Identify and analyse well-defined Engineering problems using codified standard methods.
- 3) Design/ development of solutions:** Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
- 4) Engineering Tools, Experimentation and Testing:** Apply modern Engineering tools and appropriate technique to conduct standard tests and measurements.
- 5) Engineering practices for society, sustainability and environment:** Apply appropriate Technology in context of society, sustainability, environment and ethical practices.
- 6) Project Management:** Use Engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
- 7) Life-long learning:** Ability to analyse individual needs and engage in updating in the context of Technological changes.

Program Specific Outcomes (PSO's) – (ICD-DCS-CDE)

1) Program Specific Outcome (PSO) 1: Proficiency in Software Development and Coding

Graduates of the Diploma in Computer Science and Engineering program will be able to design, develop, test, and learn software applications using a variety of programming languages and development tools and will be able to demonstrate the ability to apply the fundamental principles of computer science to solve real-world problems, optimize code for performance, and work effectively in team-based projects.

2) Program Specific Outcome (PSO) 2: Competence in Networking and Cyber security

Graduates will possess the skills necessary to configure, manage, and troubleshoot Computer Networks, ensuring the security and integrity of data and will be able to understand the principles of network design, be proficient in using networking tools and protocols, and apply cyber security measures to protect systems from threats and vulnerabilities.

Program Educational Objectives (PEOs) – (ICD-DCS-CDE)

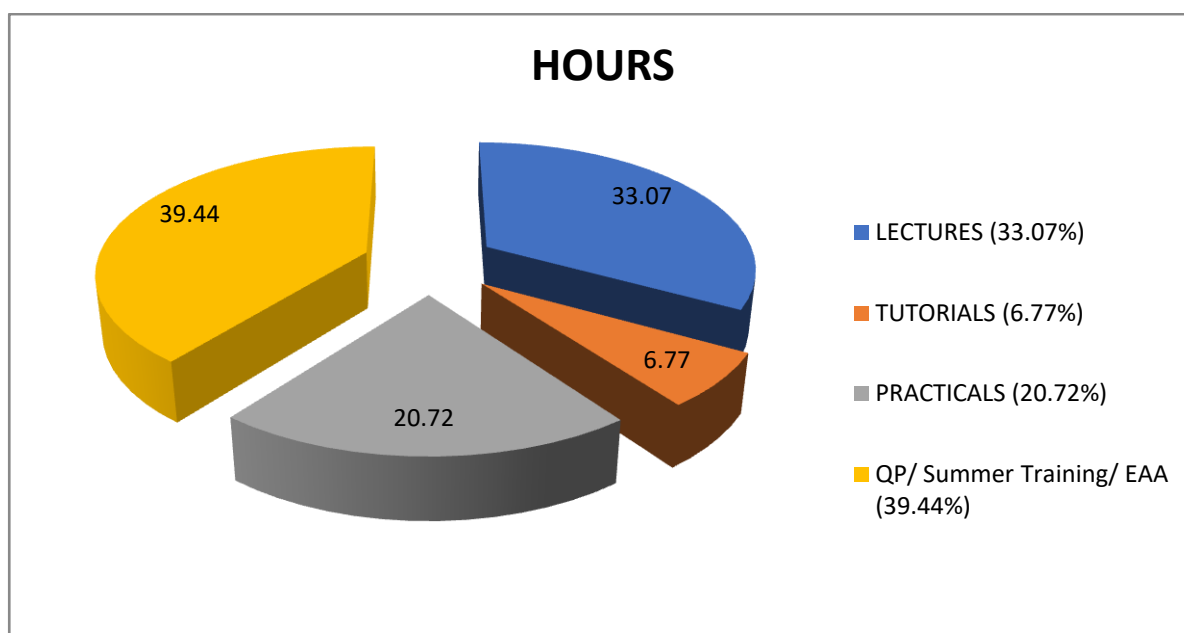
1) PEO1: Employment in Diverse Fields

Graduates of the Diploma in Computer Science and Engineering program will secure employment in diverse fields within the technology sector, such as software development, network administration, cyber security, data analysis, and IT support and will be able to apply practical skills and theoretical knowledge to solve real-world problems and contribute effectively to organizations.

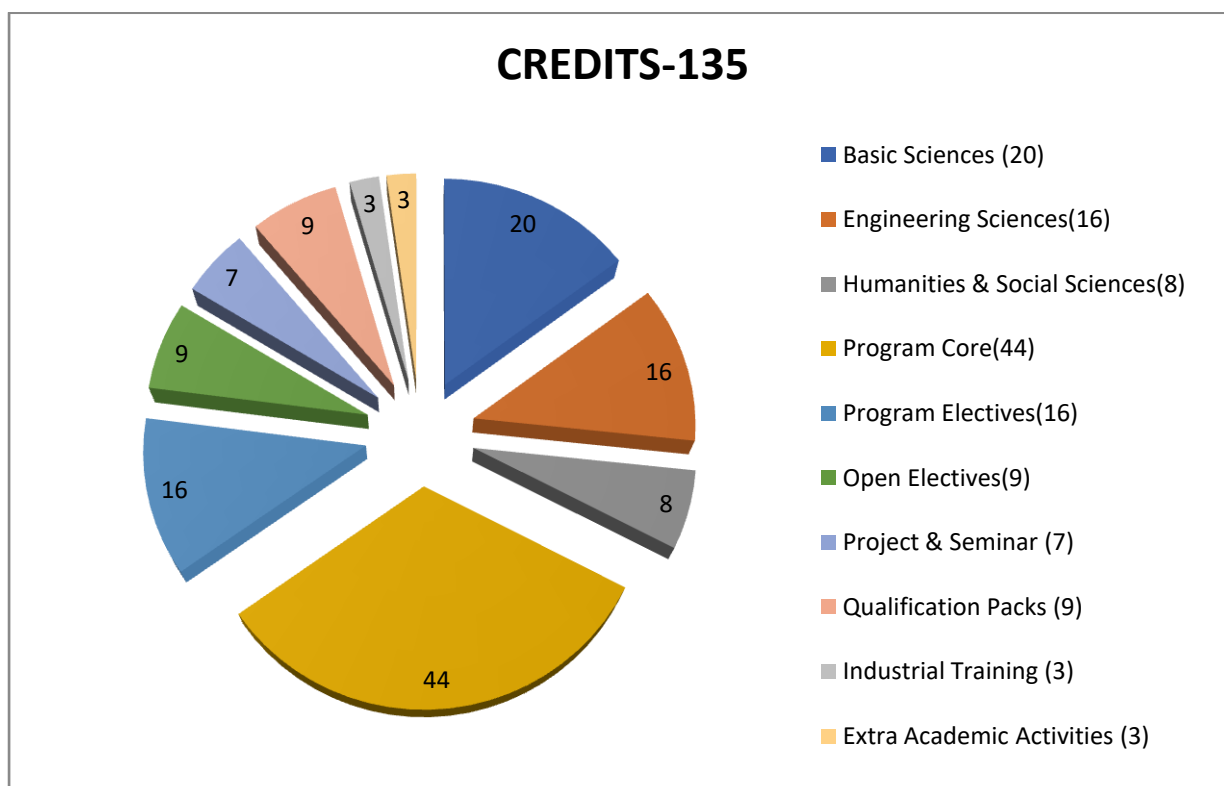
2) PEO2: Pursuit of Higher Education for Professional Development

Graduates will pursue higher education opportunities, such as bachelor's degrees, certifications, and specialized training, to enhance their professional development and will be able to engage in lifelong learning to deepen their expertise, stay updated with technological advancements, and advance their careers in the dynamic field of Computer Science.

CONTACT HOURS DISTRIBUTION (ICD-DCS-CDE)



DISTRIBUTION OF COURSE CREDITS (ICD-DCS-CDE)



Study Scheme of Integrated Certificate Diploma (ICD) Programme in CSE

Semester-I							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	BSMA101	Mathematics- I	3	1	0	4	4
2	BSPH103	Applied Physics-I	2	1	0	3	3
3	BSCY105	Applied Chemistry	2	1	0	3	3
4	HSMH101	Communication Skills in English	2	0	0	2	2
5	BSPH107	Applied Physics-I Lab	0	0	2	2	1
6	BSCY109	Applied Chemistry Lab	0	0	2	2	1
7	HSMH105	Communication Skills in English Lab	0	0	2	2	1
8	ESME101	Engineering Graphics	0	0	2	2	1
9	ESWS103	Engineering Workshop Practice	0	0	4	4	2
10	HSSP103	Sports and Yoga	0	0	2	2	1
		Total	9	3	14	26	19
11	QPCS101	Data Entry Operator	0	0	8	8	1

Semester-II							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	BSMA102	Mathematics- II	3	1	0	4	4
2	BSPH104	Applied Physics-II	2	1	0	3	3
3	ESCS102	Introduction to IT Systems	2	0	0	2	2
4	ESEE104	Fundamentals of Electrical Engineering	2	0	0	2	2
5	ESEC108	Fundamentals of Electronics Engineering	2	0	0	2	2
6	ESME106	Engineering Mechanics	2	1	0	3	3
7	BSPH106	Applied Physics-II Lab	0	0	2	2	1
8	ESCS110	Introduction to IT Systems Lab	0	0	2	2	1
9	ESEE112	Fundamentals of Electrical Engineering Lab	0	0	2	2	1
10	ESEC114	Fundamentals of Electronics Engineering Lab	0	0	2	2	1
11	ESME116	Engineering Mechanics Lab	0	0	2	2	1
		Total	13	3	10	26	21
12	QPCS102	Assembling and Repairing of Computer Hardware	0	0	8	8	1
13	EAA102	Extra Academic activity (A/B/C)	0	0	0	1	1 (S/US)

Summer-I							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	QPCS103	Free and Open Source Software's (6 Weeks)			24	24	3

Semester-III							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	PCCS201	Computer Programming	3	1	0	4	4
2	PCCS203	Internet and Web Technologies	2	1	0	3	3
3	PCCS205	Operating Systems	3	1	0	4	4
4	PCCS207	Computer Architecture and Organization	3	0	0	3	3
5	PCCS209	Software Engineering	3	0	0	3	3
6	PCCS211	Computer Programming Lab	0	0	4	4	2
7	PCCS213	Internet and Web Technologies Lab	0	0	2	2	1
8	AUCH201	Environmental Science	2	0	0	2	0 (S/US)
		Total	16	3	6	25	20
9	QPCS201	Web Development	0	0	8	8	1
10	EAA201	Extra Academic activity (A/B/C)	0	0	0	1	1 (S/US)

Semester-IV							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	PCCS202	Object Oriented Programming	3	1	0	4	4
2	PCCS204	Data Structures	2	1	0	3	3
3	PCCS206	Database Management System	2	1	0	3	3
4	PECS202	Program Elective-I	3	1	0	4	4
5	OECS202	Open Elective-I	3	0	0	3	3
6	PCCS208	Object Oriented Programming Lab	0	0	2	2	1
7	PCCS210	Data Structures Lab	0	0	2	2	1
8	PCCS212	Database Management System Lab	0	0	2	2	1
9	AUMH202	Essence of Indian Knowledge and Tradition	2	0	0	2	0 (S/US)
		Total	15	4	6	25	20
10	QPCS202	IT Helpdesk Attendant	0	0	8	8	1
11	EAA202	Extra Academic activity (A/B/C)	0	0	0	1	1 (S/US)

Summer-II							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	TPID202	Summer Internship-II (4-6 weeks)			24	24	3

Semester-V							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	HSMH301	Entrepreneurship and Start-ups	3	1	0	4	4
2	PCCS301	Java Programming	2	0	0	2	2
3	PCCS303	Multimedia Technologies	2	0	0	2	2
4	PECS301	Program Elective-II	3	1	0	4	4
5	OECS301	Open Elective-II	3	0	0	3	3
6	PCCS305	Microprocessor	2	0	0	2	2
7	PCCS307	Java Programming Lab	0	0	2	2	1
8	PRCS301	Minor Project	0	0	4	4	2
		Total	15	2	6	23	20
9	QPCS301	Media Development	0	0	8	8	1

Semester-VI							
S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1	AUMH302	Indian Constitution	2	0	0	2	0 (S/US)
2	PCCS302	Computer Networks	3	0	0	3	3
3	PECS302	Program Elective-III	3	1	0	4	4
4	PECS304	Program Elective-IV	3	1	0	4	4
5	OECS302	Open Elective-III	3	0	0	3	3
6	PCCS304	Computer Networks Lab	0	0	2	2	1
7	PRCS302	Major Project	0	0	8	8	4
8	SECS302	Seminar	1	0	0	1	1
		Total	15	2	10	27	20
9	QPCS302	Security Analyst	0	0	8	8	1

List of Program Elective Subjects

S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1		Program Elective-I	3	1	0	4	4
	PECS202A	Digital Electronics	3	1	0	4	4
	PECS202B	Computer Graphics	3	1	0	4	4
	PECS202C	Cyber Ethics	3	1	0	4	4
2		Program Elective-II	3	1	0	4	4
	PECS301A	Internet of Things	3	1	0	4	4
	PECS301B	Fundamentals of Artificial Intelligence	3	1	0	4	4
	PECS301C	Cyber Crime	3	1	0	4	4
3		Program Elective-III	3	1	0	4	4
	PECS302A	Python Programming	3	1	0	4	4
	PECS302B	Introduction to Data Sciences	3	1	0	4	4
	PECS302C	Security in Computer Networks	3	1	0	4	4
4		Program Elective-IV	3	1	0	4	4
	PECS304A	Introduction to Cloud Computing	3	1	0	4	4
	PECS304B	Data warehouse and Data Mining	3	1	0	4	4
	PECS304C	Cyber Security	3	1	0	4	4

List of Open Elective Subjects

S. No	Sub Code	Subject Name	L	T	P	Hrs.	Credits
1		Open Elective-I	3	0	0	3	3
	OECS202A	Computer Programming	3	0	0	3	3
	OECS202B	Software Engineering	3	0	0	3	3
	OECS202C	Operating Systems	3	0	0	3	3
	OECS202D	Cyber Ethics	3	0	0	3	3
2		Open Elective-II	3	0	0	3	3
	OECS301A	Object Oriented Programming	3	0	0	3	3
	OECS301B	Computer Graphics	3	0	0	3	3
	OECS301C	Computer Networks	3	0	0	3	3
	OECS301D	Cyber Crime	3	0	0	3	3
3		Open Elective-III	3	0	0	3	3
	OECS302A	Java Programming	3	0	0	3	3
	OECS302B	Database Management System	3	0	0	3	3
	OECS302C	Introduction to Artificial Intelligence	3	0	0	3	3
	OECS302D	Cyber Security	3	0	0	3	3

Course Code	Definitions
L	Lecture
T	Tutorial
P	Practical
HS	Humanities & Social Sciences Courses
BS	Basic Science Courses
ES	Engineering Science Courses
PC	Program Core Courses
PE	Program Elective Courses
OE	Open Elective Courses
AU	Audit Courses
SI	Summer Internship
PR	Project
SE	Seminar
QP	Qualification Pack
OJT	On Job Training

Courses	EE (Electrical engineering)
	IE (Instrumentation Engineering)
	EC (Electronics & Communication Engineering)
	CS (Computer Science & Engineering)
	CH (Chemical Engineering)
	ME (Mechanical Engineering)
	FT (Food Technology)
	PH (Physics)
	CY (Chemistry)
	MA (Mathematics)
	MH (Management & Humanities)
	SP (Sports)
	TP (Training & Placement)

SUMMARY

Table 1: Working weeks, days and hours in a semester

Semester	Working Weeks / Semester	Working days/ Week	Working Hours/ Day	Hours/ semester
Odd	15	5	8	600
Even	15	5	8	600

Table 2: Relation of credits and hours in a week

Description	Credits	Hours/ week
Theory/ Tutorial	1	1
Laboratory (Practical)	1	2
QP/ On Job Training	1	8