Kurukshetra University, Kurukshetra

(Established by the State Legislature Act-XII of 1956)
("A++" Grade, NAAC Accredited)

Scheme of Examination
for
Post Graduate Programme

Post Graduate Diploma in Computer Applications (PGDCA)

as per NEP 2020
Curriculum and Credit Framework for Postgraduate Programme

With Multiple Entry-Exit, Internship and CBCS-LOCF
With effect from the session 2024-25 (in phased manner)

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS
FACULTY OF SCIENCES

KURUKSHETRA UNIVERSITY, KURUKSHETRA -136119

HARYANA, INDIA

Abbreviations used

Sr. No.	Full form	Abbreviation	Description
1	Core Course	CC	Compulsory core courses for the programme. CC will be a theory course of 4 credits.
2	Discipline Elective Course	DEC	Elective Courses offered by the DCI. A student can opt one course out of 4 given options for that DEC course. One course can be opted in a semester through MOOCs from SWAYAM or other portals. DEC will be a theory course of 4 credits.
3	Practicum	PC	Practical course of 4 credits which will be compulsory in all semesters for all students except in the 4th Semester when a student opts Dissertation work.
4	Seminar	S	The seminar is a Skill Enhancement Course (SEC) aiming to impart skills of self-learning, comprehension, communication and presentation.
5	Constitutional, Human, Moral Values and IPR	CHM	CHM is a compulsory Value Added theory Course of 2 credits.
6	Open Elective Course	OEC	OEC is a Multidisciplinary course of 2 credits. Every student will opt for a course from the pool of OEC courses other than Computer Science.
7	Employability and Entrepreneurship Skills Course	EEC	EEC is a Vocational or SEC course aiming to increase the employment and entrepreneurship potential of students of programme.
8	Theory	Th	
9	Practical	P	
9	Lecture	L	
10	Tutorial	T	
11	Dissertation	D	A research course of 12 credits, where a student will undertake research work and submit a dissertation as per rules prescribed by the university.
12	Programme Learning Outcomes	PLOs	
13	Course Learning Outcomes	CLOs	

Programme Learning Outcomes (PLOs): As per NEP-2020, PLOs include outcomes specific to disciplinary areas of learning associated with the chosen field (s) of learning as well as generic learning outcomes. These also include transferable skills and competencies that post-graduates of all programmes of study should acquire and be able to demonstrate for the award of the Degree. The programme learning outcomes would also focus on knowledge and skills that prepare students for further study, employment, research, and responsible citizenship.

The PLOs of the PGDCA programme are stated as per the following domains:

PLOs	After the completion of PGDCA degree, a student will be able to:
PLO-1: Knowledge and Understanding	Demonstrate the deep understanding and advanced knowledge in the core areas of Computer Applications subject and understanding of recent developments and issues, including concepts, theories, principles, methods, and techniques in different areas of Computer Applications.
PLO-2: General Skills	Acquire the general skills required for performing and accomplishing the tasks as expected to be done by a skilled professional in the fields of Computer Applications.
PLO-3: Technical/ Professional Skills	Demonstrate the learning of advanced cognitive computing, programming, formulating models, using various softwares, and other teaching and professional skills required for completing the specialized tasks related to the profession and for conducting and analyzing the relevant research tasks in different domains of Computer Applications.
PLO-4: Communication Skills	Effectively communicate the attained skills in different areas of Computer Applications in a precise, well-structured, and unambiguous mathematical language through effective oral and/or written expressions to the society at large.
PLO-5: Application of Knowledge and Skills	Apply the acquired knowledge and skills to the problems in the subject area, and identify and analyze the issues where the attained knowledge and skills can be applied by carrying out various industry-oriented projects and/or research investigations to formulate appropriate solutions to various problems ranging from basic to complex and unpredictable problems associated with the field of Computer Applications or allied fields.
PLO-6: Critical Thinking and Research Aptitude	Attain the capabilities of critical thinking, logical reasoning, investigating problems, analysis, problem-solving, and application of computer science methods/techniques, in intra/inter-disciplinary areas of **Computer Applications,** enabling to develop skills to solve problems having applications in other disciplines and/or in the real world and to formulate, synthesize, and articulate issues for analyzing, designing, and implementing of project/research proposals, testing hypotheses, and drawing inferences based on the analysis.
PLO-7: Constitutional, Humanistic, Moral Values and Ethics	Know constitutional, humanistic, moral and ethical values, and intellectual property rights to become a scholar/professional with ingrained values in expanding knowledge for the society, and to avoid unethical practices such as fabrication, falsification or misrepresentation of data or committing plagiarism.
PLO-8: Capabilities/ qualities and mindset	To exercise personal responsibility for the outputs of own work as well as of group/team and for managing complex and challenging work(s) that requires new/strategic approaches.
PLO-9: Employability and job-ready skills	Attain the knowledge and skills required for increasing employment potential, adapting to the future work and responding to the rapidly changing demands of the employers/industry/society with time, and to have strong foundation in basic and applied aspects of Computer Applications so as to venture into research in different areas of computer applications, jobs in scientific and various industrial sectors and/or teaching career in Computer Applications.

Kurukshetra University, Kurukshetra

Scheme of Examination for Postgraduate Programme Post Graduate Diploma in Computer Applications (PGDCA)
as per NEP-2020 Curriculum and Credit Framework for Postgraduate Programmes
(CBCS LOCF) with effect from the session 2024-25
Framework-2
Scheme-P

Semester	Course Type	Course Code	Nomenclature of course	Theory (Th)/ Practical (P)/ Seminar/ CHM/OEC/ EEC/ Dissertation/ Project Work	Credits		Contact hours per week L: Lecture P: Practical T: Tutorial				Internal Assessment Marks	End Term Examination Marks	Total Marks	Examination hours
					Course	Semester Total	L	T	P	Total				
1	CC-1	M24-CAP-101	Client Side Web Technology	Th	4	26	4	0	0	4	30	70	100	3
	CC-2	M24-CAP-102	Operating System & Linux	Th	4		4	0	0	4	30	70	100	3
	CC-3	M24-CAP-103	Data Structure	Th	4		4	0	0	4	30	70	100	3
	CC-4	M24-CAP-104	Programming in Java	Th	4		4	0	0	4	30	70	100	3
	PC-1	M24-CAP-105	Practical -1	P	4		0	0	8	8	30	70	100	4
	PC-2	M24-CAP-106	Practical -2	P	4		0	0	8	8	30	70	100	4
	Seminar	M24-CAP-107	Seminar	S	2		0	0	0	2	0	50	50	1
	BC-1*	M24-CAP-108	Computer Fundamentals and Problem Solving Through C	Th	0		4	0	0	4	30	70	100	3
	BC-2*	M24-CAP-109	Practical - 3	P	0		0	0	2	2	15	35	50	4
	*The students who have passed computer science as a subject in graduation/ 10+2 level/ any diploma course from a recognized university are not required to do the bridge course in first semester.													
2	CC-5	M24-CAP-201	Server Side Web Technology	Th	4	26	4	0	0	4	30	70	100	3
	CC-6	M24-CAP-202	Computer Network	Th	4		4	0	0	4	30	70	100	3

Semester	Course Type	Course Code	Nomenclature of course	Theory (Th)/ Practical (P)/ Seminar/ CHM/OEC/ EEC/ Dissertation/ Project Work	Credits		Contact hours per week L: Lecture P: Practical T: Tutorial				Internal Assessment Marks	End Term Examination Marks	Total Marks	Examination hours
					Course	Semester Total	L	T	P	Total				
	CC-7	M24-CAP-203	Database Management Systems	Th	4		4	0	0	4	30	70	100	3
	CC-8	M24-CAP-204	Artificial Intelligence	Th	4		4	0	0	4	30	70	100	3
	PC-3	M24-CAP-205	Practical-4	P	4		0	0	8	8	30	70	100	4
	PC-4	M24-CAP-206	Practical-5	P	4		0	0	8	8	30	70	100	4
	BC-3#	M24-CAP-207	Mathematical Foundations for Computer Science	Th	0		4	0	0	4	30	70	100	3
	BC-4#	M24-CAP-208	Practical - 6	P	0		0	0	2	2	15	35	50	4
	CHM	M24-CHM-201	Constitutional, Human and Moral Values, and IPR	Th	2		2	0	0	2	15	35	50	3
	Internship	M24-INT-200	An internship course of 4 Credits of 4-6 weeks duration during summer vacation after 2nd semester is to be completed by every student. Internships can be either for enhancing the employability or for developing the research aptitude.								50	50	100	
	#The students who have passed mathematics/statistics as a subject in graduation/ 10+2 level from a recognized university are not required to do the bridge course in second semester.													
NOTES: A student can opt one elective course in a semester, i.e. up to 40% of total elective courses mentioned in the scheme, through SWAYAM/NPTEL or other online portals recognized by the UGC and the university.														

Note: Students who have not passed Computer Science as a subject at the graduation level/10+2 level/ or through any diploma course from a recognized university are required to undertake a bridge course in the first semester. Successful completion of this bridge course is mandatory for eligibility to obtain the MCA degree. However, it should be noted that while the marks obtained in the bridge course will be reflected on the final year grade sheet, they will not be included in the calculation of the CGPA/SGPA. Similarly, students who have not studied Mathematics/Statistics as a subject at the graduation level/10+2 level from a recognized university are required to complete a bridge course in the second semester. Passing this bridge course is also mandatory for eligibility to obtain the MCA degree. As with the first-semester bridge course, the marks obtained will appear on the final year grade sheet but will not contribute to the CGPA/SGPA.

Table-1

Course composition- Theory/ Theory +Tutorial			
Course Credit	**Internal Assessment marks**	**End term exam marks**	**Total marks**
2	**15**	**35**	**50**
4	**30**	**70**	**100**

Table-2: Course composition- Theory + Practical

Course Credit	**Theory**		**Practical**		**Total marks**
Theory +Practical	**Internal Assessment marks**	**End term exam marks**	**Internal Assessment marks**	**End term exam marks**	
2+0	**15**	**35**	**-**	**-**	**50**
4+0	**30**	**70**	**-**	**-**	**100**
0+**4**	**-**	**-**	**30**	**70**	**100**

Table- 3: Distribution of Internal Assessment Marks (Theory)

Total Internal Assessment Marks (Theory)	**Class Participation**	**Seminar/Presentation/Assignment/Quiz/class test, etc.**	**Mid-Term Exam**
15	**4**	**4**	**7**
30	**5**	**10**	**15**

Table -4 Distribution of Internal Assessment Marks (Practical)

Total Internal Assessment Marks (Practicum)	**Class Participation**	**Seminar/Demonstration/Viva-Voce/Lab record, etc.**	**Mid-Term Exam**
30	**5**	**10**	**15**