1. Structure of Ph.D. Program

Number of Semesters	8 (Typical)
Number of Courses	16 (Minimum)
Credit hours allowed per Semester	12 (Maximum) in Spring/Fall
Coursework Credit Hours	48
Thesis Credit Hours	30
Program Credit Hours	78 (Minimum)

2. Distribution of Courses and Credit Hours:

Courses Description	No. of Courses	Credit Hours
University Compulsory Courses	04	12
Program Compulsory Courses	04	12
Optional / Elective Courses	08	24
Thesis / Dissertation	-----	30
Total		**78**

3. Scheme of Study

Semester–I		Semester–II	
Course Title	**Credit Hours**	**Course Title**	**Credit Hours**
University Compulsory Courses–I	03	University Compulsory Courses–III	03
University Compulsory Courses–II	03	University Compulsory Courses–VI	03
Program Compulsory Courses–I	03	Program Compulsory Courses–III	03
Program Compulsory Courses–II	03	Program Compulsory Courses–IV	03
	12		12
Semester–III		**Semester–IV**	
Course Title	**Credit Hours**	**Course Title**	**Credit Hours**
Elective Courses–I	03	Elective Courses–V	03
Elective Courses–II	03	Elective Courses–VI	03
Elective Courses–III	03	Elective Courses–VII	03
Elective Courses–IV	03	Elective Courses–VIII	03
Identify thesis topic/Initial seminar		**Comprehensive examination**	
	12		12
Semester–V		**Semester–VI**	

1st Progressive Seminar	2nd Progressive Seminar
Semester–VII	**Semester–VIII**
Final Progressive Seminar	Thesis Defense

4. List of Proposed Courses

Program Compulsory Courses

S. No.	Course Code	Courses Name	Credit Hours	Marks
1	CSE-631	Advanced Discrete Signal Processing	03	100
2	CSE-632	Advanced Software Architecture	03	100
3	CSE-633	Advanced Computer Networks	03	100
4	CSE-634	Advanced Computer Architecture	03	100

Optional/Elective Courses

S. No.	Course Code	Courses Name	Credit Hours	Marks
1	CSE-871	Advanced Algorithm Design	03	100
2	CSE-872	Advanced Artificial Intelligence	03	100
3	CSE-873	Thesis Proposal and Dissertation Writing	03	100
4	CSE-874	Next-generation Wireless Communication	03	100
5	CSE-875	Advanced Human Computer Interaction	03	100
6	CSE-876	Data warehousing and Mining	03	100
7	CSE-877	Cloud Computing	03	100
8	CSE-878	Advanced Database Systems	03	100

9	CSE-879	Applied Machine Learning	03	100
10	CSE-880	Applied Natural Language Processing	03	100
11	CSE-881	Computer Vision	03	100
12	CSE-882	Advanced Image Processing	03	100
13	CSE-883	Advanced Embedded Systems	03	100
14	CSE-884	Advanced Distributed systems	03	100
15	CSE-885	Advanced Operating Systems	03	100
16	CSE-886	Advanced Digital Systems	03	100
17	CSE-887	Advanced Cryptography	03	100
18	CSE-888	Modern Communication Channel Modeling	03	100
19	CSE-889	Big Data Analytics	03	100
20	CSE-890	Robotics & Human-Machine Interaction	03	100
21	CSE-891	Project–I	03	100
22	CSE-892	Project –II	03	100
23	CSE-899	Doctoral Dissertation	03	100