

Description on Credit distribution in various academic programs adopting Choice based credit system and the list of Programs adopting CBCS

University of Petroleum & Energy Studies (UPES) adopts Choice Based Credit System (CBCS) for its B.Tech., BBA, MBA and LLB programs since 2015 as per the guidelines provided by UGC. Following the UGC Guidelines, Curricular Structure of Various academic Programs (B.Tech., BBA, MBA, B.Sc., BCA, LLB and Ph.D.) are restructured from Conventional elective based semester system in 2015. Curricular Structure of academic Programs adopting CBCS system of fixed credits comprises of the following:

Foundation Courses: UPES adopts compulsory foundation courses, which lead to knowledge enhancement and common to all disciplines.

Core Courses: Compulsory courses to be studied by the student for the successful completion of the program. This includes theory courses, lab (Practical) courses, Project, dissertation, Industry Visit, etc.

Elective Courses:

Program Elective/Department Elective Courses: These courses will strengthen the proficiency in the domain related to the program. Student can choose this course from the pool of courses.

Open Elective/Generic Elective: Courses that are offered by unrelated discipline/Departments are called Open electives. Generic Electives are the ones, which add generic proficiency to students. UPES follows generic electives as Open electives.

Credit Distribution for B.Tech (Programs) in CBCS

Description	% of total Credits
Basic Sciences Foundation course	13
Engineering Foundation course	10
Open Electives	8.5
Core courses	60
Program Electives	8.5

Credit Distribution for Law Programs in CBCS

Description	% of Total Credits
Fundamental Courses	15
Core Courses	72
Open Elective	03
Elective Courses	10



Credit Distribution for BBA Programs in CBCS

Description	% of Total Credits
Fundamental Courses	24
Core Courses	60
Open Elective	06
Elective Courses	10

Credit Distribution for MBA Programs in CBCS

Description	% of Total Credits
Fundamental Courses	20
Core Courses	60
Open Elective	08
Elective Courses	12

Credit Distribution for BCA Program in CBCS

Description	% of Total Credits
Fundamental Courses	15
Core Courses	70
Open Elective	05
Elective Courses	10

Credit Distribution for B.Sc. Programs in CBCS

Description	% of Total Credits
Fundamental Courses	04
Core Courses	68
Generic Elective Courses	15
Discipline Elective Courses	13

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List of academic Programs adopting Choice based credit System (CBCS) during the academic year (2018-19)

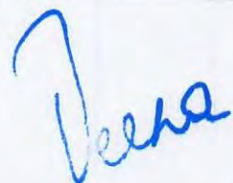
Sl.No	Name of the program adopting CBCS
1	B.Tech (Aerospace Engineering)
2	B.Tech (Aerospace Engineering with Specialization in Avionics)
3	B.Tech (Applied Petroleum Engineering with Specialization in Upstream)
4	B.Tech (Applied Petroleum Engineering with Specialization in Gas)
5	B.Tech (Automotive Design Engineering)
6	B.Tech (Geo Informatics Engineering)
7	B.Tech (Geosciences Engineering)
8	B.Tech (Chemical Engineering with specialization in Refining and Petrochemicals)
9	B.Tech (Civil Engineering with specialization in Infrastructure Engineering)
10	B.Tech (Mining Engineering)
11	B.Tech (Mechatronics Engineering)
12	B.Tech (Power Systems Engineering)
13	B.Tech (Fire Safety Engineering)
14	B.Tech (Computer Science & Engineering with specialization in Main Frame Technology)
15	B.Tech (Computer Science & Engineering with specialization in Oil & Gas Informatics)
16	B.Tech (Computer Science & Engineering with specialization in Cloud Computing & Virtual Technologies)
17	B.Tech (Computer Science & Engineering with specialization in Open Source & Open Standards)
18	B.Tech (Computer Science & Engineering with LLB in Cyber Law)
19	B.Tech (Computer Science & Engineering with specialization in Business Analytics & Optimization)
20	B.Tech (Computer Science & Engineering with specialization in E-Commerce, Retail & Automation)
21	B.Tech (Computer Science & Engineering with specialization in IT Infrastructure)

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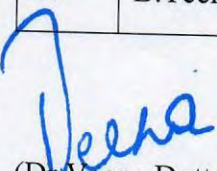
22	B.Tech (Computer Science & Engineering with specialization in Banking Financial Services & Insurance)
23	B.Tech (Computer Science & Engineering with specialization in Cyber Security and Forensics)
24	B.Tech (Computer Science & Engineering with specialization in Graphics and Gaming)
25	B.Tech (Computer Science & Engineering with specialization in Mobile Application Development /Mobile Computing)
26	B.Tech (Computer Science & Engineering with specialization in Internet of Things & Smart Cities)
27	B.Tech Computer Science & Engineering with specialization in DevOps
28	B.Tech Computer Science & Engineering with specialization in Big Data
29	Bachelor of Computer Applications
30	MBA (Aviation Management)
31	MBA (Energy Trading)
32	MBA (International Business)
33	MBA (Logistics & Supply Chain Management)
34	MBA (Oil & Gas Management)
35	MBA (Port & Shipping Management.)
36	MBA (Power Management)
37	MBA (Business Analytics)
38	MBA (Urban Infrastructure Development & Smart Cities)
39	MBA (Human Resources Management/ Marketing Management/ Financial Management/ Operations Management)
40	MA (Economics with specialization in Energy Economics)
41	BBA (Logistics Management)
42	BBA (Auto Marketing)
43	BBA (Oil & Gas Marketing)
44	BBA (Aviation Operation)
45	BBA (Foreign Trade)

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46	BBA (Digital Marketing)
47	BBA (E-Business)
48	BBA (Financial Analysis & Services)
49	BBA (Human Resources Management/ Marketing Management/ Finance Management/ Operations Management)
50	BBA (Media Management)
51	BBA (Accounting and Information System)
52	BA(Economics with specialization in Energy Economics)
53	BA LL.B (Hons.) with specialization in Energy Law/ Criminal law/ Labour law
54	B.Com LL.B (Hons) with specialization in Taxation Laws
55	BBA LL.B (Hons.) with specialization in Corporate Law/ International Trade & Investment/ Banking, Finance & Insurance law
56	B.Tech (Electronics & Communication Engineering)
57	B.Tech(Instrumentation & Control Engineering)
58	B.Tech (Mechanical Engineering with specialization in Thermal Engineering/ Machine Design/ Production Engineering/ Material Science with specialization in Nano Technology)
59	BBA (E-Commerce Marketing)
60	B.Tech (Energy Trading with specialization with LLB in IPR)
61	B.Tech (Computer Science & Engineering with specialization in Telecom Informatics)
62	B.Tech (Computer Science & Engineering with specialization in Manufacturing Informatics)
63	B.Tech (Computer Science & Engineering with specialization in HealthCare Informatics)
64	B.Tech (Electrical Engineering)
65	Ph.D (Electronics Engineering)
66	Ph.D (Electrical Engineering)
67	Ph.D (Mechanical Engineering)
68	Ph.D (Aerospace Engineering)



69	Ph.D (Chemical Engineering)
70	Ph.D (Petroleum Engineering)
71	Ph.D (General Management)
72	Ph.D (Computer Science & Engineering)
73	Ph.D (Safety Engineering)
74	Ph.D (Law)
75	Ph.D (Transportation Management)
76	Ph.D (Economics and International Business)
77	Ph.D (Energy Management)
78	Ph.D (Civil Engineering)
79	B.Sc (Hons.) Mathematics
80	B.Sc (Hons.) Physics
81	B.Sc (Hons.) Chemistry
82	B.Tech (Computer Science Engineering with specialization in Artificial Intelligence and Machine Learning)
83	B.Com (Hons) with specialization in Taxation/Banking Insurance & Management
84	B.Sc LL.B (Hons) with specialization in IPR/ Food, Health and Environmental Law/ Medical & Forensics law)
85	B.Tech (Material Science & Nano Technology)
86	B.Tech (Production & Industrial Engineering)
87	B.Com (Hons.)
88	B.Tech (Electronics Engineering)
89	B.Tech (Electronics Engineering with specialization in Broadband Communication Technology)
90	B.Tech (Electronics Engineering with specialization in IOT based Instrumentation)


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