UNIVERSITY OF ENGINEERING & MANAGEMENT

K O L K A T A

CURRICULUM STRUCTURE FOR UNDERGRADUATE EDUCATION

In Accordance with the National Education Policy (NEP) 2020

UEM, KOLKATA

Semester-wise Course Structure · Batch 2025-2029 onwards

Kolkata, West Bengal

Curriculum Outline for UG Education under NEP 2020 – Generic Structure

Generic Credit Structure for Undergraduate Programmes – All Departments (B.Tech, BBA, BCA, BHTA/BHM)								
Semester	**Major (DC-MJ)**	**IDC / DCMN**	**MDC**	**AEC**	**SEC**	**VAC**	**IAPC**	**Total**
I	0–15	–	4–22.5	0–3	1	–	–	**19–28.5**
II	0–13	–	3–19.5	2–3	1	0–3	–	**21–32.5**
Certificate	**0–28**	**–**	**8–42**	**2–6**	**2**	**0–3**	**–**	**41–61**
III	7–19	–	0–13	0–3	1–5	–	1–3	**21–26**
IV	12–23	–	0–4	0–3	1–3	0–2	1	**21–30**
Diploma	**40–62**	**–**	**14–42**	**2–12**	**4–10**	**0–5**	**2–4**	**83–117**
V	11–22	0–3	0–3	0–3	1–3	0–1	1–4	**22–29**
VI	11–22	0–3	–	0–3	1–2.5	–	0–3	**19–27**
Graduate	**64–101**	**0–6**	**14–42**	**2–16**	**6–13**	**0–6**	**4–9**	**126.5–173**
VII	3–10	3–6	–	0–3	1–2	–	6–10	**18–26**
VIII	0–7	0–6	–	0–2	1–2	–	8–14	**15–25**
Graduate (Hons.)	**73–112**	**9–15**	**14–42**	**5–16**	**8–15.5**	**0–6**	**19–28**	**160.5–219**

How to read this table. Each cell gives the credits in that course category for that semester, as the range across all ten UEM programmes (B.Tech ECE, EE, EEE, ME, Biotechnology, CSE/IT & Allied, BBA, BCA, BHTA/BHM); a single value means every programme carries the same credits, and a blank cell means no credits in that category. Teal rows are cumulative credits at each exit level. The Total column is the range of the semester-wise totals stated in the UEM course structure. Programme-wise figures are on the next pages.

Exit levels. Certificate after Semester II, Diploma after Semester IV, Graduate (Bachelor's degree) after Semester VI and Graduate (Honours) after Semester VIII, following the NEP 2020 multiple entry–exit pattern. Semesters I–II are the Common First Year for ECE, EE, EEE, ME and CSE/IT & Allied; Biotechnology, BBA, BCA and BHTA/BHM follow their own first-year structures.

Course Categories

Category	Scope
DC-MJ	Programme professional core (PCC) theory and laboratories, core engineering-science courses of the major, and professional electives (PEC).
IDC / DCMN	Open electives (OEC, theory).
MDC	Basic science (BSC) and foundation engineering-science (ESC) courses from outside the major.
AEC	Language, communication, management, economics and humanities courses (HSMC).
SEC	Essential Studies / Skill Development for Professionals (ESP, SDP, ESEP) and skill sessionals (Python, Java, data structures, cloud).
VAC	Mandatory and value-added courses (Constitution, Environmental Science / Sustainability, IVC, co-curricular, audit), plus MAR, IFC and MOOCs.
IAPC	Mini and major projects, innovative projects, internships, seminars, grand viva and comprehensive viva.

Evaluation and Examination Pattern

For core and elective courses at UEM, Kolkata. Total evaluation weightage is 100% per course, split between end-semester and internal assessment.

Component	Weightage	Assessment Breakdown / Guidelines	Passing Criteria
Theory – End-Semester Examination (ESE)	50%	Conducted for 100 marks. Covers all modules of the syllabus with a moderate balance of conceptual, application-based and analytical questions. Question banks are prepared by faculty and finalised by an external moderator approved by the Controller of Examinations (CoE).	Minimum 50/100 in the End-Semester examination
Theory – Internal Assessment (IA)	50%	Mid-Semester Tests: 30 marks (minimum of two tests, equally weighted); Continuous Assessment: 20 marks (quizzes, assignments, etc.); Notional/experiential learning: 10 marks; Attendance & Class Participation: 10 marks.	–
Practical – End-Semester Examination	50%	Experiment / Project Execution: 40 marks; Lab Report: 30 marks; Viva-Voce: 30 marks.	Minimum 50/100 in the End-Semester practical examination
Practical – Internal Laboratory Assessment	50%	Two continuous assessments of 50 marks each, based on laboratory performance, lab records and viva.	–

Programme-wise Credit Summary (credits per semester and cumulative at each exit level)												
Programme	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**Certificate (I–II)**	**Diploma (I–IV)**	**Graduate (I–VI)**	**Graduate Hons. (I–VIII)**
B.Tech ECE	28.5	32.5	25	21	23	24	21	25	**61**	**107**	**154**	**200**
B.Tech EE	28.5	32.5	25	24	23	22.5	19	21	**61**	**110**	**155.5**	**195.5**
B.Tech EEE	28.5	32.5	22	24	25	25	20	18	**61**	**107**	**157**	**195**
B.Tech ME	28.5	32.5	22	24	23	21.5	19.5	15	**61**	**107**	**151.5**	**186**
B.Tech Biotechnology	23.5	23.5	25	28	25	19	26	16	**47**	**100**	**144**	**186**
B.Tech CSE, IT & Allied	28.5	32.5	26	30	29	27	23	23	**61**	**117**	**173**	**219**
BBA	19	22	21	21	22	21.5	18	16	**41**	**83**	**126.5**	**160.5**
BCA	20	21.5	22	22	22	22.5	19	17	**41.5**	**85.5**	**130**	**166**
BHTA / BHM	22	21	21	22	24	21.5	21	17	**43**	**86**	**131.5**	**169.5**