



BEHARA

COLLEGE OF ENGINEERING AND TECHNOLOGY

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ICT Integration, Experiential Learning & OBE

ICT Integration

Component	Implementation	Credits/Tools
MOOCs Mandatory	1 compulsory 8-12 week course via SWAYAM/NPTEL	Up to 32 credits (20%)
Virtual Labs	vlab.co.in remote experimentation	Integrated in all labs
Blended Delivery	25% coursework via digital platforms	Mentor-monitored

Key Features: Faculty advisors monitor MOOC progress; certificates + university exams required





Experiential Learning (16 Credits Hands-on)

Activity	Duration	Credits	Semester
Community Internship	8 weeks	2	End II Year
Industry Internship	8 weeks	2	End III Year
Full Semester Project	Final semester	12	VIII Semester
Tinkering Labs	Innovation projects	Mandatory	Across program

SEC Structure: 5 courses (2 Basic + 2 Advanced + 1 Soft Skills) Sem III-VII.

Outcome-Based Education Framework

Course Learning Outcomes (CLOs) → Program Outcomes (POs) → PEOs



Bloom's L1(L,R) → L2(U,A) → L3(Cr,E,C) Washington Accord Mapping

Assessment Pattern:

- **40% Pass:** MSE(40) + ESE(60)
- **Continuous:** Internals(25) + Labs(25) + Projects(50-200 marks)
- **CO-PO Mapping:** Every course documents attainment levels

Student-Centric Credit Flexibility

Total Credits: 160 (Basic) + 12 (Minor) + 15 (Honors) = 187 Max

Breakdown:

|— BS (13%) + ES (14%) + PC (34%)

|— Electives+SEC (21%) ← Maximum Flexibility Here

|— Projects+Internships (10%)

|— Mandatory Non-credit (MC)

Hands-on mandatory components (16 credits total):

- Summer Internships: 8 weeks community-based (end II year), industry-based (end III year); final semester full internship/project (12 credits).
- Tinkering Labs: Mandatory credit course for innovation/design thinking.
- Skill Enhancement Courses (SEC): 5 courses (Basic Skills ×2, Advanced ×2, Soft Skills ×1) across Sem III-VII.
- Project Work: Full-semester industry-oriented in VIII semester.

Outcome-Based Education (OBE)

Course structure follows OBE framework:

- Course Learning Outcomes (CLOs): Defined for every course with Bloom's taxonomy levels (L1-L3).
- Program Outcomes (POs): Mapped to Washington Accord; assessed via CO-PO mapping.
- Assessment: 40% pass threshold (MSE + ESE); continuous evaluation via internals, labs, internships.
- CBCS Flexibility: PE (5 courses), OE (4 courses), Honors/Minors for student-centric learning.

Feature	Credits	Implementation	Assessment
MOOCs	Up to 32	SWAYAM/NPTEL	Certificate + University exam
Virtual Labs	Integrated	vlab.co.in	Lab performance
Internships	16 total	Industry/Community	50-200 marks
SEC Courses	Included in 33	Domain + Soft skills	Continuous eval
Tinkering Labs	Mandatory	Innovation projects	Project marks