B.Tech curriculum

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General instructions to all B.Tech students

- Students can register elective courses with level of n-2 to n+2 and n being their year of study
- EM3020 is not a mandatory course. It can be replaced with another FE
- Maximum CA credits allowed: 40% of LA/CA
- Maximum mini project credits allowed - 6
- The maximum credits that can be earned from a semester internship are 6. Permission from the FA and DUGC is necessary to claim these credits.
- Mini projects can be done in semesters 5,6,7 or 8. The course code for odd semester is CH4015 and for even semester its CH4025. The credit for one mini project is 3.
- BT1010, LA1760 and ID4006 are mandatory courses for all B.Tech students.

Curriculum for 2020 to 2024 batches

Semester-I (Total credits=15)

Basic Sciences

- CH1020: Applied Chemistry (2)
- CY1010: Environmental Chemistry (2)
- EP1108: Modern Physics (2)
- MA1110: Calculus-I (1)
- MA1220: Calculus-II (1)

Basic Engineering

- ID1063: Introduction to Programming (3)

Liberal Arts

- LA1760: Communication Skills (2)

Core

- CH1010: Introduction to Chemical Engineering (2)

Semester-II (Total credits=16)

Basic Sciences

- BT1010: Introduction to Life Sciences (1)
- CH1031: Applied Chemistry Lab (1)
- CY1031: Chemistry Laboratory (2)
- MA1140: Elementary Linear Algebra (1)
- MA1150: Differential Equations (1)

Basic Engineering

- CH1040: Thermodynamic Laws & Phase Transitions (3)
- ID1054: Digital Fabrication (2)

Liberal Arts

- LAxxxx:LA/CA Elective (2)

Core

- CH1030: Chemical Process Calculations (2)

Free elective

- EM3020: Introduction to Entrepreneurship (1)

Semester-III (Total credits=18)

Core

- CH2010: Biochemical Engineering (3)
- CH2020: Numerical Methods (3)
- CH2030: Transport Phenomena (3)
- CH2040: Chemical Engineering Thermodynamics (3)
- CH2050: Applied Mathematics in Chemical Engineering (3)

Liberal Arts

- LAxxxx: LA/CA Elective (3)

Semester-IV (Total credits=19)

Basic Sciences

- EP1031: Physics Lab (2)

Basic Engineering

- CH2060: Materials Science for Chemical Engineers (2)
- EE1102: Basic Electrical Engineering (3)
- ID1050: Artificial Intelligence (1)

Core

- CH2070: Chemical Reaction Engineering-I (3)
- CH2080: Heat Transfer (3)
- CH2090: Fluid Mechanics (3)

Liberal Arts

- LAxxxx: LA/CA Elective (2)

Semester-V (Total credits=19)

Core

- CH3010: Mass Transfer – I (3)
- CH3020: Mechanical Operations (3)
- CH3021: HT & FM Lab (2)
- CH3030: Chemical Technology (2)
- CH3040: Chemical Reaction Engineering-II (3)

Departmental Elective

- CHxxxx: Dept. Elective (6)

Semester-VI (Total credits=17)

Core

- CH3031: MUO and CRE Lab (2)
- CH3050: Mass Transfer – II (2)
- CH3060: Process Control (3)

Departmental Elective

- CHxxxx: Dept. Elective (6)

Free Elective

- XXxxxx: Free Elective (4)

Semester-VII (Total credits=14)

Core

- CH4011: Process Simulation Lab (2)
- CH4012: Process Design and Economics (3)
- CH4021: MT and Control Lab (2)

Departmental Elective

- CHxxxx: Dept. Elective (2)

Free Elective

- XXxxxx: Free Elective (3)

Liberal Arts

- LAxxxx: LA/CA Elective (2)

Semester-VIII (Total credits=11)

Core

- CH4040: Process Intensification (1)

Departmental Elective

- CHxxxx: Dept. Elective (4)

Free Elective

- XXxxxx: Free Elective (5)

Liberal Arts

- ID4006: Ethics and Values (1)

Total credits distribution, Total = 129

- Core: 56
- Basic Engineering: 14
- Basic Sciences: 16
- Liberal Arts: 12
- Department Electives: 18
- Free Electives: 13