

GUJARAT TECHNOLOGICAL UNIVERSITY

Preamble for New syllabus of Bachelor of Engineering

Gujarat Technological University is revising the syllabus of Bachelor of Engineering in line with recommendations from AICTE from the academic year 2018-19. As per AICTE in the present syllabus of first year is heavily loaded and it is of utmost importance that the students entering into the first year of an engineering course should feel at ease by lowering the burden of syllabus and credits. This is necessary for a student to acclimatize to the new environment of a college and to create a bonding between the teacher and a student. Hence AICTE has introduced induction program in the curriculum to equip the students with soft skills, and get them acquainted with the culture of institution and human values. A student has to undergo this induction program for 3 weeks after joining the institute and before the commencement of classes.

As per the guidelines of AICTE it is mandatory to have 6-8 weeks summer internships before completion of the under graduate course in engineering in a suitable industry. This will equip the students with practical understanding and training about industry practices.

Major features in AICTE model Curriculum:

- a) Induction program
- b) Model Curriculum has been designed in such a way that it encourages innovation and research as total number of credits have been reduced to 160 credits and many new courses have been incorporated, giving more time and scope for practical aspects.
- c) The revised Model Curriculum has been designed so that the students can understand the industry requirements and have hands-on experience. The students will develop a problem solving approach which is requirement of the industry.
- d) Curriculum on Entrepreneurship is included to support AICTE's start-up policy and motivate students to be a job provider rather than a job seeker.

AICTE Model Curriculum has suggested that Basic Science courses and Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc will give a strong foundation for the study of engineering. Professional core courses will provide the knowledge to understand the fundamentals of the specific branch of engineering. Professional six Elective courses will provide the relevant specialization within the branch to a student. Open subjects — Electives from other technical and /or emerging branches will provide the knowledge of other branches so that the student has flexibility to venture into other branches if required, in future. Non-technical subjects like Courses on Constitution of India, Environment Science/Engg. and Essence of India Traditional Knowledge have also been included in the curriculum so that the student is better equipped when he/ she faces such issues in his/ her job after graduation. Project work, seminar and internship in industry or elsewhere will enable the student to get a feel of the work environment and also provide him/her with an opportunity to apply the knowledge he/ she has gathered for practical purpose at a specific industry.

GTU will follow the same structure for the branches of Bachelor of Engineering with minor modification as follows:

Sr no	Category	AICTE Credits	Suggested credit breakup of credits (total 160)
1	Humanities and Social Sciences including Management courses	12	12
2	Basic Science courses	25	23
3	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc	24	26
4	Professional core courses	48	50
5	Professional Elective courses relevant to chosen specialization/branch	18	24
6	Open subjects — Electives from other technical and /or emerging subjects	18	11
7	Project work, seminar and internship in industry or elsewhere	15	16
8	Mandatory Courses [Environmental Sciences, Induction Program, Indian Constitution, Essence of Indian Traditional Knowledge]	(non-credit)	(non-credit)
	Total	160	162