

Department of Computer Science and Engineering
Indian Institute of Technology, Hyderabad

2-year MTech TA Curriculum

Below is the proposed curriculum structure for two-year MTech program (TA) from 2026 onwards:

Course No	Course Title	Credits	Semester
CS6013	Advanced Data Structures and Algorithms	3	I
CS5996	Industry Lecture Series	1	When offered
LA5180	Communication Skills (Advanced)	1	When offered
CSxxxx	Core Electives (see notes)	30	I,II,III,IV
CS6475	Capstone Project 1	3	Summer
CS6495	Capstone Project 2	6	III
CS6505	Capstone Project 3	6	IV

Notes and Mandatory restrictions:

- **Basket system:** a minimum of 6 credits needs to be completed within the first two semesters, from each of the three baskets: Theory, Systems, and Data Science. These credits are counted towards the Core electives requirement.
- The remaining elective credits can be taken from any basket (Theory, Systems, or Data Science).
- In each of the first two semesters, a minimum of 9 credits needs to be completed and a maximum of 16 credits can be registered for.
- Only graduate-level courses offered by the CSE department can be counted towards the Core electives requirement.
- In case a student desires to count a non-graduate level course offered by CSE, or a course not offered by CSE, towards the core electives requirement, then the student needs to formally apply for an exception to DPGC along with an appropriate and detailed justification, and include a recommendation from the thesis advisor, or any other CSE faculty in case the advisor is not allocated. The DPGC is the approval authority in this matter; however, the DPGC cannot approve such an exception for more than three credits for the same student in case of non-CSE courses, and for more than nine credits in case of non-graduate CSE courses. In case the student wishes to count such exceptions towards the 6 credit requirements in the three baskets, then he/she should further justify why it belongs to a particular basket. The DPGC may approve the exception along with categorization (basket) or the exception alone.
- The Capstone problem statements are expected to lie in the broad area of Computer Science and Engineering.

- Students may complete Capstone projects in an industry setting, subject to prior approval from the DPGC.

3-year MTech RA Curriculum

Below is the proposed curriculum structure for three-year MTech program (RA):

Course No	Course Title	Credits	Semester
CS6013	Advanced Data Structures and Algorithms	3	I/II
CS5996	Industry Lecture Series	1	I/II
LA5180	Communication Skills (Advanced)	1	I/II
CS6000	Research Methods	1	I/II
CSxxxx	Core Electives (see notes)	21	I,II,III,IV
CS6035	Thesis (Stage-1)	4	Summer+III
CS6065	Thesis (Stage-2)	6	IV
CS6075	Thesis (Stage-3)	6	Summer+V
CS6085	Thesis (Stage-4)	8	VI

Mandatory restrictions:

- In each of the first two years, a minimum of 6 credits needs to be completed and a maximum of 18 credits can be registered for. The student must need to register for at least one course till 4th semester.
- Only graduate-level courses offered by the CSE department can be counted towards the Core electives requirement.
- In case a student desires to count a non-graduate level course offered by CSE, or a course not offered by CSE, towards the core electives requirement, then the student needs to formally apply for an exception to DPGC along with an appropriate and detailed justification, and include a recommendation from the thesis advisor, or any other CSE faculty in case the advisor is not allocated. The DPGC is the approval authority in this matter; however, the DPGC cannot approve such an exception for more than three credits for the same student in case of non-CSE courses, and for more than nine credits in case of non-graduate CSE courses.

M.Tech Dual Degree (Computer Science and Engg) Curriculum

Course No	Course Name	Number of Credits	Semester
CSxxxx	Core Electives (see notes)	12	VII/VIII/IX/X
CS6035	Thesis (Stage-1)	4	Summer + VII
CS6065	Thesis (Stage-2)	6	VIII
CS6075	Thesis (Stage-3)	6	Summer+IX
CS6085	Thesis (Stage-4)	8	X

Mandatory restrictions:

- Toward fulfilling the requirement of core elective credits, a maximum of 3 credits may be taken in mathematics department or any engineering department with the approval of DPGC. The same course taken as part of the B.Tech program will not be considered for dual degree.
- In VII and VIII semesters, a maximum of 6 credits can be taken.
- A **core elective** is a graduate level elective offered by the CSE department.
- The selection of the thesis guide will be done in the VI semester.
- Credits earned as part of this program cannot be used for any other degree requirement if the student decides to drop his dual degree program.