

### Course Template M.Tech

BT/BS - MT (Category-B) From other departments			Template No. SEE-2			
Semester →	1	2	Summer Term	3	4	
Courses	<b>Recommended UG course</b>	<b>PG Component</b>				
	Technical communications course [1]	<b>SEE-601* [9]</b>	<b>SEE-604 [9]</b>	M.Tech. Thesis [9]	M.Tech Thesis [36]	M.Tech Thesis [36]
		<b>SEE-602* [9]</b>	<b>SEE-605 [9]</b>		<b>SEE691 course [0]</b>	
		<b>SEE-603* [9]</b>	<b>SEE690 course [0]</b>			
		DE-PG-1 (Basket-A1) [9]	DE-PG-3 (Basket-B1) [9]			
		DE-PG-2 (Basket-A1) [9]	DE-PG-4 (Basket-B1) [9]			
<b>Credits →</b>	36	36	9	36	36	
				Total Credits (PG) →	153	

#### Remarks

- 1) [1] It is highly recommended that the students audit a communications UG course. Some examples are as follows: AE401A-Technical Communication, BSE301A-Scientific & Professional Communication, CHE300a-Chemical Engineering Communication Skills, CHM361a-Chemistry Communication Skills, CE341A-Civil Engineering Communication Skills.
- 2) \* Two of the three courses are compulsory. Students can take the third course as elective (DE-PG-1).
- 3) DE-PG-1,2 from basket-A1 and DE-PG-3,4 from basket-B1.
- 4) No. of compulsory courses: 6 (including zero credit courses: SEE690 & SEE691).
- 5) Minimum no. of electives: 4 (2 in 1<sup>st</sup> semester and 2 in 2<sup>nd</sup> semester).
- 6) The template is designed keeping in view the students joining in July/Aug. For students joining in even semester, the students are advised to consult the DPGC.
- 7) Instead of Basket-A1 or Basket-B1, the students can choose from Basket-A2 or Basket-B2, with the approval of the DPGC (& in consultation with the guide).

Basket-A1	Basket-B1
	SEE-609: Computational Methods in Engineering**
SEE-606: Electrochemical Energy Systems	SEE-610: Introduction to Materials Modelling and Simulations <sup>s</sup>
SEE-607: Hydrogen Energy: Production, Storage and Utilization	SEE-611: Energy Systems: Modelling and Analysis
SEE-608: Introduction to Bioenergy and Biofuels	SEE-612: Manufacturing of energy systems
One of the following courses which has not been taken as compulsory course: SEE-601, SEE-602, SEE-603	SEE 613: Solar Photovoltaics
	SEE-614: Wind Energy
	SEE-615: Solar Thermal Engineering
	SEE-616: Essential Electrical Engineering for Renewables Integration
	SEE-617: Introduction to sustainable energy policy
Basket-A2	Basket-B2
EE698D: Smart Grid Technology	CHE642A: Numerical Methods**
EE630A: Simulations of Power Systems	ME685A: Applied Numerical Methods**
EE660A: Basics of Power Electronic Converters	AE603: Introduction to Scientific Computing**
EE631A: Advanced Power System Stability	CHE622A: Molecular Simulations <sup>s</sup>
MSE673: Fundamentals and Applications of Electrochemistry	ChE626A: Practical Introduction to Quantum Mechanical Methods for Scientists and Engineers <sup>s</sup>
	ME743: Fuel Cells

\*\*,\$ Students should take only one of these courses

(i.e. Students can take ONLY one of the following set: CHE642A, ME685A, AE603, SEE-609 and ONLY one of the following two: CHE622A, ChE626A).

#### Minimum credit requirement for M.Tech

Coursework	72
Thesis	81
Total	153