M. Tech. program in Decision Sciences and Engineering

Semester I					Semester II				
Cat.	Code	Course	L-T-P	Cr.	Cat.	Code	Course/Thesis	L-T-P	Cr.
DC	ME-DSE 511	Deterministic Decision Modelling	3-0-0	9	DC	ME-DSE 521	Stochastic Decision Modelling	3-0-0	9
DC	ME-DSE 512	Probability and Statistics for Data Sciences	3-0-0	9	DC	ME-DSE 522	Simulation for Decision Making	3-0-0	9
DE		Departmental Elective-1 (DE-1)	3-0-0	9	DE		Departmental Elective-4 (DE-4)	3-0-0	9
DE		Departmental Elective-2 (DE-2)	3-0-0	9	DE		Vertical Specific Elective 1 (DE-5)	3-0-0	9
DE		Departmental Elective-3 (DE-3)	3-0-0	9	DE		Vertical Specific Elective 2 (DE-6)	3-0-0	9
		Humanities/Language & Management Course	3-0-0	9		ME-DSE 593	Thesis Unit		11
DL	ME-DSE 591	Decision Modelling Lab	0-0-3	3	DL	ME-DSE 592	Simulation Lab	0-0-3	3
	Total credits in the semester			**57**		**Total credits in the semester**			**59**

Semester III					Semester IV				
Cat.	Code	Thesis	L-T-P	Cr.	Cat.	Code	Thesis	L-T-P	Cr.
DT	ME-DSE594	Thesis		55	DT	ME-DSE595	Thesis		55
	Total credits in the semester			**55**		**Total credits in the semester**			**55**

Categories

DC	-Departmental/Programme Core
DE	- Departmental Elective
DL	- Laboratory
DT	-Thesis

Credit Breakup

Total Theory/Practical Credits:	(57+48) = 105
Total Thesis Credits:	(55+55+11) = 121
Total Programme Credits:	226

Departmental Electives to be offered in Semester I

(DE-1, DE-2 and DE-3)

Sr. No.	Code	Course
1	ME-DSE 513	Programming, Data Structures and Algorithms
2	ME-DSE 514	Production and Operations Analysis
3	ME-DSE 515	Multi Criteria Decision Making
4	ME-DSE 516	Engineering Economics
5	ME-DSE 517	Financial Analytics

Departmental Electives to be offered in Semester II (DE-4)

Sr. No.	Code	Course
1	ME-DSE 523	Machine Learning for Decision Making
2	ME-DSE 531	Project Management
3	ME-DSE 532	Production Planning and Control

Vertical Specific Electives (DE-5 and DE-6)

Logistics and Supply Chain Management

Sr.No.	Code	Course
1	ME-DSE 524	Supply Chain & Logistics Management
2	ME-DSE 525	Facility Location: Models and Algorithms
3	ME-DSE 526	Network Flows and Graphs
4	ME-DSE 533	Forecasting & Time Series Analysis
5	ME-DSE 534	Blockchain Technology
6	ME-DSE 535	Total Quality Management

Manufacturing Systems Engineering

Sr.No.	Code	Course
1	ME-DSE 533	Forecasting & Time Series Analysis
2	ME-DSE 536	Design of Production Systems
3	ME-DSE 537	Quality Engineering & Design of Experiments
	ME-DSE 535	Total Quality Management
4	ME-DSE 524	Supply Chain & Logistics Management
5	ME-DSE 538	Product Design and Development
6	ME-DSE 525	Facility Location: Models and Algorithms
7	ME-DSE 534	Blockchain Technology

Agri-business Management

Sr.No.	Code	Course
1	ME-DSE 524	Supply Chain & Logistics Management
2	ME-DSE 527	Agri-import and export management
3	ME-DSE 534	Blockchain Technology
4	ME-DSE 525	Facility Location: Models and Algorithms
5	ME-DSE 535	Total Quality Management

Healthcare Systems Management

Sr.No.	Code	Course
1	ME-DSE 524	Supply Chain & Logistics Management
2	ME-DSE 528	Legal Aspects and Ethics in Healthcare
3	ME-DSE 539	Data Mining & Applications
4	ME-DSE 529	Operations & Quality Management of Healthcare Systems
5	ME-DSE 525	Facility Location: Models and Algorithms
6	ME-DSE 534	Blockchain Technology
7	ME-DSE 535	Total Quality Management