

Elective Courses for Specialization Areas

1. Applied probability and statistics

S.No.	Course No.	Course Title	Unit	Prerequisite
1	IE450	Stochastic Processes		IE332, 351
2	IE451	Queuing Theory		IE332, 351
3	IE452	Maintenance Management		IE352

2. Human/Machine Systems

S.No.	Course No.	Course Title	Unit	Prerequisite
1	IE460	Human computer interface		IE464*
2	IE461	Industrial Ergonomics		IE464*
3	IE462	Industrial psychology		IE464*
4	IE463	Occupational safety and health		IE464*
5	IE465	Work place environment		IE464*

3. Information Systems

S.No.	Course No.	Course Title	Unit	Prerequisite
1	IE440	Computer systems organization		ES261
2	IE441	Data-base structuring and management		ES261, IE409*
3	IE442	Management information systems II		IE414*

4. Manufacturing Engineering

S.No.	Course No.	Course Title	Unit	Prerequisite
1	IE 420	Design of jigs and fixtures		IE 323
2	IE 421	Machine tool design		IE 224, 323
3	IE 423	Metrology		IE 323, EE 360
4	IE 424	Welding and joining processes		IE 323
5	IE 425	Metal forming processes		IE 323

5. Management Systems Engineering

S.No.	Course No.	Course Title	Unit	Prerequisite
1	IE471	Production scheduling		IE409*
2	IE472	Inventory systems design		IE409*
3	IE473	Forecasting		IE409*
4	IE452	Maintenance management		IE352
5	IE474	Service industry management		IE363, 364

6. Operations Research

S.No.	Course No.	Course Title	Unit	Prerequisite
1	IE433	Network Analysis		IE332
2	IE450	Stochastic processes		IE332, 351
3	IE451	Queuing theory		IE332, 351

B.Sc. Program**Third Semester**

S.No.	Course No.	Course Title	Unit	Lec.	Lab.	Prereq.
1	IE203	Principles of economics	12	4	-	ES102
2	IE227	Workshop technology	9	2	2	ES102
3	ME209	Materials engineering	12	3	2	ES122
4	ES201	Differential equations	12	4	-	ES102
5	ES217	Engineering mechanics I	9	3	-	ES102
6	ES261	Principles of Comp. & Prog.	9	2	2	ES102

Fourth Semester

S.No.	Course No.	Course Title	Unit	Lec.	Lab.	Prereq.
1	IE204	Int. to industrial engineering	6	2	-	ES102
2	IE212	Engineering cost analysis	9	3	-	ES102
3	IE224	Int. to machine tool design	12	4	-	ME207, ES217
4	IE228	Manufacturing processes I	9	3	-	IE227
5	IE250	Prob. & engineering statistics I	9	3	-	ES102, ES261
6	ES206	Linear Algebra	12	4	-	ES102
7	ES218	Engineering mechanics II	9	3	-	ES117

Fifth Semester

S.No.	Course No.	Course Title	Unit	Lec.	Lab.	Prereq.
1	IE307	Engineering economy	9	3	-	ES102
2	IE323	Manufacturing processes II	12	3	2	IE228
3	IE331	Operations research I	12	4	-	IE204
4	IE351	Prob. & engineering statistics II	9	3	-	IE250
5	IE363	Work design and measurement	9	3	-	IE204

Sixth Semester

S.No.	Course No.	Course Title	Unit	Lec.	Lab.	Prereq.
1	IE332	Operations research II	12	4	-	IE331
2	IE348	IE systems design I	6	2	-	332, 352, 364
3	IE352	Quality eng. And management	12	3	2	IE351
4	IE364	Facilities design	12	3	2	IE363
5	ME360	Thermo fluids eng. For IE	12	4	-	ES218
6	EE360	Principles of electrical eng.	12	4	-	ES112

Seventh Semester

S.No.	Course No.	Course Title	Unit	Lec.	Lab.	Prereq.
1	IE403	Systems simulation	9	3	-	IE332, 351, IE409
2	IE409	Production and inventory control	9	3	-	IE332, 351
3	IE420	Numerical control of M/C tools	12	3	2	IE323, EE360
4	IE422	Design and analysis of expts.	9	3	-	IE351
5	IE448	IE systems design II	6	2	-	IE348, IE403, 409
6	IE464	Human factors engineering	12	3	-	IE351, 363, 364
7	IExxx	Elective I	9	3	-	

Eighth Semester

S.No.	Course No.	Course Title	Unit	Lec.	Lab.	Prereq.
1	IE402	Engineering management	9	3	-	IE307, 403, 409, 464
2	IE406	Reliability engineering	9	3	-	IE351, 352
3	IE414	Management information systems	9	3	-	ES261, IE409
4	IEyyy	Elective II	9	3	-	
5	IEzzz	Elective III	9	3	-	
6	IE449	IE systems design III	18	3	-	IE448, IE402, 406