

PSN COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

MELATHEDIYOOR- 627 152

M.E IN CRYOGENIC ENGINEERING (FULL TIME)

REGULATION - 2014

CURRICULUM

Semester I

S.NO	Sub Code	Course Title	L	T	P	C
Theory						
1	122001	Applied Mathematics for Cryogenic Engineers	3	1	0	4
2	122002	Elements Of Cryogenic Engineering	3	0	0	3
3	122003	Advanced Heat & Mass Transfer	3	0	0	3
4	122004	Vacuum Engineering	3	0	0	3
5	122005	Advanced Refrigeration	3	1	0	4
6	#	Elective - I	3	0	0	3
Practical						
7	122501	Term Paper On Topics Of Relevance To Cryogenic Engineering	0	0	4	2
Total Credits For Semester -I			18	2	4	22

Electives For Semester I

S.NO	Sub Code	Course Title	L	T	P	C
1.	122201	Materials for Low Temperature Applications	3	0	0	3
2.	122202	Productivity Management and Re-engineering	3	0	0	3
3.	122203	Cryo Physics	3	0	0	3
4.	122204	Systems and Simulation	3	0	0	3
5.	122205	Structure And Properties Of Materials	3	0	0	3

Semester II

S.NO	SUB CODE	COURSE TITLE	L	T	P	C
Theory						
1.	122006	Cryogenic Systems	4	1	0	4
2.	122007	Cryogenic Plants And Equipments	3	0	0	3
3.	122008	Advanced Air Conditioning	4	1	0	4
4.	122009	Computational Fluid Dynamics	3	0	0	3
5.	122010	Cryogenic Applications	3	0	0	3
6.	***	Elective –II	3	0	0	3
Practical						
7.	122101	Cryogenic Engineering Laboratory	0	0	4	2
Total Credits For Semester -II			20	2	4	22

List of Electives For Semester II

S.NO	SUB CODE	COURSE TITLE	L	T	P	C
1.	122206	Cryogenic Heat Exchangers	3	0	0	3
2.	122207	Advanced Cryo Coolers	3	0	0	3
3.	122208	Engineering Materials	3	0	0	3
4.	122209	Techniques Of Material Characterisation	3	0	0	3
5.	122210	Advanced Fluid Mechanics	3	0	0	3

Semester III

S.NO	SUB CODE	Course Title	L	T	P	C
Theory						
1.	122011	Cryogenic Rocket Propulsion	4	0	0	4
2.	***	Elective - III	3	0	0	3
3.	***	Elective -IV	3	0	0	3
Practical						
4.	122301	Project Work Phase- I	0	0	12	6
Total Credits For Semester III			9	0	12	16

List of Electives For Semester –III

S.NO	SUBJECT CODE	SUBJECT TITLE	L	T	P	C
1.	122211	Low Temperature Measurement &Instrumentation	3	0	0	3
2.	122212	Cryofuel Systems	3	0	0	3
3.	122213	Radiant Heating And Cooling Systems	3	0	0	3
4.	122214	Advanced Thermodynamics	3	0	0	3
5.	122215	Superconductivity & Low Temperature Physics	3	0	0	3
6.	122216	Industrial Refrigeration Systems	3	0	0	3
7.	122217	Gas Turbines And Jet Propulsion	3	0	0	3
8.	122218	Advanced Cryogenics &Applied Superconductivity	3	0	0	3
9.	122219	Computer Simulation Of Refrigeration & Air conditioning Systems	3	0	0	3
10.	122220	Design Of Condensers, Evaporators & Cooling Towers	3	0	0	3

SEMESTER –IV

S.NO	SUB CODE	Course Title	L	T	P	C
1.	122302	Project Work Phase- II	0	0	24	12
Total Credits For Semester IV			9	0	24	12

Total Credits = 72