List of Elective subjects to be offered for E4 Sem2 during 2013-14 Branch wise

Chemical Engineering

S.No		Subject	Pre-requisite	Credits
1	**Elective-II**	1. CH6211: Multi phase flow	CH3001, CH3002	3
		2. CH6214: Hazard analysis & risk management in Chemical industry		4
2	**Elective-III**	1.CH6208: Novel separation Processes		3
		2. CH6212: Fluidization Engineering	CH2001	4
3	**Elective-IV**	1. CH6204: Advanced mathematical techniques in Chemical Engineering		3
		2.CH6203: Process modelling & Simulations	CH2902	4

Civil Engineering_E4 Sem2

Sl No.	Subject No.	Subject Name	Pre Requisites	Credits
1	CE4501	Pre stressed concrete structures	CE3104	3
2	CE4541	Dynamics of Soil and Foundation		4
3	CE4552	Morden Surveying Techniques		4
4	CE4531	Advance Hydrology	CE2202	3
5	CE4532	Advance Hydraulics	CE3103	3
6	CE4551	Transportation Engineering – II	CE3101	4

Computer Science & Engineering				
S. No	Subject Code	Subject Name	Prerequisite	**Credits**
1	CS4502	Parallel Algorithms	CS2101 & CS3101	
2	CS4407	Artificial Intelligence	CS2101	
3	CS4572	Pattern Recognition & Its Applications	MA2101	
4	CS4410	Mobile Application Development	CS2301	
5	CS4504	Robotics	CS2101	
6		Software Reliability Engineering	CS2201	
7		**Natural Language Processig (NLP)**	***FLAT (CS2202)***	
8	EC4431	Digital VLSI Circuits	Digital Electronic Circuits/Switching Circuits and Logic Design	
9	EC4454	RF Integrated Circuits	RF & Microwave Engg	
10	EC4516	Digital Voice & Picture Communication	Digital Communication	
11	EC4501	Satellite Communication	Analog Communication, Digital Communication	

12	EC4504	Information Theory and Coding	Digital Communications, Probability Theory	
13	EC4505	Detection and Estimation Theory	Signals and systems, Probability Theory	
14	EC4401	Mobile Communication	Digital Communication	
Mechanical Engineering				
S. No	Course No	Course	Prerequisite	Credits
1	ME 4501	Metal Casting Technology (Elective II)	Manufacturing process I (ME 3101)	4
2	ME 4502	Technology of Surface Coating	None	4
3	ME 4503	Welding Technology	Manufacturing process II (ME 3102)	4
4	ME 4508	Non-Traditional Manufacturing Processes	Into. To manufacturing process(ME 1002)	4
5	ME 4524	Advanced Engineering Thermodynamics	Thermodynamics (ME2102)	4
6	ME 4529	Computational Fluid dynamics	Heat Transfer (ME 3103)	4
7	ME 4531	Solar Energy Technology	None	4
8	ME 4542	Finite Element Methods in Engineering.	Mechanics of solids (ME2103)	4
9	ME 4544	Experimental Stress Analysis	Mechanics of solids (ME2103)	4
Electronics & Communications Engineering-Sem2 Subjects				
S.No	**Course No**	**Course**	**Prerequisite**	
1	EC4431	Digital VLSI Circuits	Digital Electronic Circuits/Switching Circuits and Logic Design	
2	EC4454	RF Integrated Circuits	RF& Microwave Engg	
3	CS4572	Pattern Recognition & Machanie Itellige	Digital Image Processing/ Digital Signal Processing/ Discrete Structures	
4	EC4516	Digital Voice& Picture Communication	Digital Communications	
5	EC4501	Satellite Communication	Analog Communications/ Digital Communications	
6	EC4504	Information Theory and Coding	Digital Communications, Probability Theory	
7	EC4505	Detection and Estimation Theory	Signals and Systems, Probability Theory	

Electrical Engineering

S.no	Course \no	Course	prerequisite	credits

1	EE2202	Measurement & Electronic Instruments	Electrical Techonology (EE1001)	

Metallurgical & Materials Engineering				
S.No.	Code	Subject		Credits
1		Bio Materials		3
2		Diffusion in solids		3 #
3		Engineering Fracture Mechanics		3
4		Finite element method		3 #
5		Fuels, refractories and furnaces		3 #
6		Furnace Design, Refractorys and Thermal Barrir Coatings		3
7		Materials and Energy balance in Metallurgical Processes		3 #
8		Metals Biotechnology		3 #
9		Nonferrous extractive Metallurgy		4 #
10		Physics of materials		3#
11		Composite Materials		4
12		Advanced Manfacturing process		3 #
13		Secondary Steel making		
14		Advanced Materials and Processes		
15		Electroceramics		
16		Creep, Fatigue and Fracture		
17		Alloy design and selection of materials		
18		Electron Microscopy		
19		Diffractometry		
20		Crystallographic Texture		

MANAGEMENT

LIST OF FREE ELECTIVES & ABC COURSES IN MANAGEMENT TO BE FLOATED IN E4 SEM 2				
S.no.	**Elective No (Old Codes)**	**List of Elective Courses**	**Pre-requisite**	**Credits**
1	BM4256	Project Management	Production and Operations Management (BM2201)	
2	BM4152	Human Resource Management & IR	Foundations of Management (BM2301)	
3	BM4153	Principles of Marketing	Managerial Economics (HS1002)	
4	BM4151	Supply Chain Management	Production and Operations Management (BM2201)	
5	BM3201	Entrepreneurship and New Ventures	Managerial Economics (HS1002)	