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7.1.15 : Courses on Human Values and Professional Ethics

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7.1.15. Introduction

Our institute is affiliated to University of Mumbai. University does not offer an exclusive course on HUMAN VALUES as such. However, it is included in the curriculum as sub modules of courses such as Sustainable Manufacturing for V sem production engineering, Software Engineering for VI sem computer engineering and Business Communication for V sem, all programs covers topics on Human Values and Professional Ethics. We have added the structure of the program and said courses. The relevant information i.e specific modules relating to HUMAN VALUES is highlighted from the courses offered by University of Mumbai.

T.E. (Production) Sem.-V

Course Code	Course Name	Teaching Scheme (Contact Hours)		Credits Assigned					
		Theory	Pract	Theory	Pract	Total			
PEC501	Design of Mold & Metal Forming Tools	04	--	04	--	04			
PEC502	Operations Research	03	--	03	--	03			
PEC503	Machine Design-I	04	--	04	--	04			
PEC504	CAD/CAM/CIM	04	--	04	--	04			
PEC505	Metrology & Quality Engineering	04	--	04	--	04			
PEDLO 501X	Department Level Optional Course I	03	--	03	--	03			
PEL501	Design of Mold & Metal Forming Tools Laboratory	--	02	--	01	01			
PEL502	Machine Design-I Laboratory	--	02	--	01	01			
PEL503	CAD/CAM/CIM Laboratory	--	02	--	01	01			
PEL504	Metrology & Quality Engg Laboratory	--	02	--	01	01			
PEL505	Business Communication & Ethics	--	02*+02	--	02	02			
	Total	22	12	22	06	28			
Course Code	Course Name	Examination Scheme							
		Theory					Term Work	Pract. /Oral	Total
		Internal Assessment			End Sem Exam	Exam. Duration (in Hrs)			
		Test1	Test 2	Avg.					
PEC501	Design of Molds & Metal Forming Tools	20	20	20	80	03	--	--	100
PEC502	Operations Research	20	20	20	80	03	--	--	100
PEC503	Machine Design-I	20	20	20	80	03	--	--	100
PEC504	CAD/CAM/CIM	20	20	20	80	03	--	--	100
PEC505	Metrology & Quality Engg.	20	20	20	80	03	--	--	100
PEDLO 501X	Department Level Optional Course I	20	20	20	80	03	--	--	100
PEL501	Design of Mold & Metal Forming Tools Laboratory	--	--	--	--	--	25	25	50
PEL502	Machine Design-I Laboratory	--	--	--	--	--	25	25	50
PEL503	CAD/CAM/CIM Laboratory	--	--	--	--	--	25	25	50
PEL504	Metrology & Quality Engg Laboratory.	--	--	--	--	--	25	25	50
PEL505	Business Communication & Ethics Laboratory						50	--	50
	Total			120	480		150	100	850

* Theory for entire class to be conducted.

Course Code	Department Level Optional Course I
PEDLO5011	Internal Combustion Engines
PEDLO5012	Finite Element Analysis
PEDLO5013	Plastic Engineering
PEDLO5014	Micro and Nano Manufacturing
PEDLO5015	Sustainable Manufacturing

Course Code	Course Name	Credits
PEDLO5015	Sustainable Manufacturing	03

Objectives

1. To introduce basic concepts related to sustainability and sustainable development.
2. To get conversant with indigenous and global concerns about sustainability and its implications in manufacturing.
3. To familiarize with various technological innovations, approaches & environmental standards /legislations to promote sustainable development.

Outcomes: Learner will be able to...

1. Illustrate the agenda of indigenous and global sustainability to fulfil green expectations.
2. Demonstrate the knowledge about management of waste, pollution & energy conservation.
3. Demonstrate the knowledge of sustainability issues with its implementation in manufacturing.
4. Illustrate the relevance and implications of environment friendly materials.
5. Illustrate the implications of environment management in the context of modern industrial practices.
6. Develop the sustainability approach in environmental strategy and manufacturing.

Module	Contents	Hrs.
01	Sustainability: Basic concepts related to sustainability and sustainable development. Issues and challenges facing sustainable development. Global & indigenous sustainability agenda, green expectations & green movement.	04
02	Management of waste & pollution: Types, sources and nature of wastes, waste processing, green processing & engineering operations, Energy recovery, and 3 R principle. Types of pollution and management:-Anti pollution approaches & guide lines.	08
03	Management of Energy: Sources of energy, renewable energy, Innovations in generation, conservation, recycling and usage of energy. Energy audit and implications.	07
04	Environment friendly materials : Materials for sustainability , eco-friendly and new age energy efficient and smart materials , alternative manufacturing practices , materials and selection of manufacturing processes , control on use of renewable materials , Bio-degradable materials recycling of materials.	07
05	Environment Management : Innovations for reuse , bio-processing technology , sustainable loading on ecosystems , concept of eco-efficiency and its implementation , Environment analysis from raw materials to disposal (cradle to grave concept) sustainable design and materials for sustainable design , Environmental standards and legislations. ISO 14000, carbon foot print, anti-pollution boards, Environment management in business world, changing scenario in global perspective.	08

06	<p>Integrating sustainability approach: Environmental issues in operating strategy, creating sustainable manufacturing, promoting sustainability awareness, sustainability rating schemes, eco-labelling programmes, human values and professional ethics in sustainable manufacturing. Encouraging innovations in sustainable manufacturing.</p>	06
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Assessment:

Internal Assessment for 20 marks:

Consisting Two Compulsory Class Tests

First test based on approximately 40% of contents and second test based on remaining contents (approximately 40% but excluding contents covered in Test I)

End Semester Examination:

Weightage of each module in end semester examination will be proportional to number of respective lecture hours mentioned in the curriculum.

1. Question paper will comprise of total six questions, each carrying 20 marks
2. Question 1 will be compulsory and should cover maximum contents of the curriculum
3. Remaining questions will be mixed in nature (for example if Q.2 has part (a) from module 3 then part (b) will be from any module other than module 3)
4. Only Four questions need to be solved

Reference Books:

1. *Strategic Management of Sustainable manufacturing operations* (Advances in logistics operations & Management) By. Rameshwar Dubey & Angappa Gunabekaran by Imuste Productivity press.
2. *Analysis for Smart energy management: Tools and applications for sustainable manufacturing.* By Seog-chanoh and Alfred .J.Hildreth , Springer Series.
3. *Advances in sustainable Manufacturing* By Gunther Seliger and Marwan M.K. khraishah, Springer Series
4. *Green Management* by M.Karpagam, Geetha Jaikumar, Ane Books Pvt.Ltd.
5. *Design for Environment: A guide to sustainable Product Development.*
6. *Sustainable Development* By M.K. Ghosh Roy Ane Books Pvt.Ltd,

Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2018-19

T. E. Computer Engineering (Semester-V)

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		Theory	Pract	Tut	Theory	TW/Pract	Tut	Total
CSC501	Microprocessor	4	-	-	4	-	-	4
CSC502	Database Management System	4	-	-	4	-	-	4
CSC503	Computer Network	4	-	-	4	-	-	4
CSC504	Theory of Computer Science	3+1@	-	-	4	-	-	4
CSDLO 501X	Department Level Optional Course -I	4	-	-	4	-	-	4
CSL501	Microprocessor Lab	-	2	-	-	1	-	1
CSL502	Computer Network Lab	-	2	-	-	1	-	1
CSL503	Database & Info. System Lab	-	2	-	-	1	-	1
CSL504	Web Design Lab	-	2+2*	-	-	2	-	2
CSL505	Business Comm. & Ethics	-	2+2*	-	-	2	-	2
	Total	20	14	-	20	7	-	27

@ 1 hour to be taken tutorial as class wise.

*2 hours shown as Practical's to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name	Examination Scheme							Total
		Theory					TW	Oral & Pract	
		Internal Assessment			End Sem. Exam	Exam Duration (in Hrs)			
		Test 1	Test 2	Avg.					
CSC501	Microprocessor	20	20	20	80	3	-	-	100
CSC502	Database Management System	20	20	20	80	3	-	-	100
CSC503	Computer Network	20	20	20	80	3	-	-	100
CSC504	Theory of Computer Science	20	20	20	80	3	-	-	100
CSDLO 501X	Department Level Optional Course -I	20	20	20	80	3	--	-	100
CSL501	Microprocessor Lab	-	-	-	-	-	25	25	50
CSL502	Computer Network Lab	-	-	-	-	-	25	25	50
CSL503	Database & Info. System Lab	-	-	-	-	-	25	25	50
CSL504	Web Design Lab	-	-	-	-	-	25	25	50
CSL505	Business Comm. & Ethics	-	-	-	-	-	50	-	50
	Total	100	100	100	400	-	150	100	750

Course Code	Course Name	Credits
CSL505	Business Communication & Ethics	02

Course Objectives:

1. To inculcate professional and ethical attitude at the work place
2. To enhance effective communication and interpersonal skills
3. To build multidisciplinary approach towards all life tasks
4. To hone analytical and logical skills for problem-solving.

Course Outcomes: Learner will be able to...

1. Design a technical document using precise language, suitable vocabulary and apt style.
2. Develop the life skills/interpersonal skills to progress professionally by building stronger relationships.
3. Demonstrate awareness of contemporary issues knowledge of professional and ethical responsibilities.
4. Apply the traits of a suitable candidate for a job/higher education, upon being trained in the techniques of holding a group discussion, facing interviews and writing resume/SOP.
5. Deliver formal presentations effectively implementing the verbal and non-verbal skills

Module	Detailed Contents	Hrs.
01	Report Writing	05
1.1	Objectives of Report Writing	
1.2	Language and Style in a report	
1.3	Types: Informative and Interpretative (Analytical, Survey and Feasibility) and Formats of reports(Memo, Letter, Short and Long Report)	
02	Technical Writing	03
2.1	Technical Paper Writing(IEEE Format)	
2.2	Proposal Writing	
03	Introduction to Interpersonal Skills	09
3.1	Emotional Intelligence	
3.2	Leadership and Motivation	
3.3	Team Building	
3.4	Assertiveness	
3.5	Conflict Resolution and Negotiation Skills	
3.6	Time Management	
3.7	Decision Making	
04	Meetings and Documentation	02
4.1	Strategies for conducting effective meetings	
4.2	Notice, Agenda and Minutes of a meeting	
4.3	Business meeting etiquettes	
05	Introduction to Corporate Ethics	02
5.1	Professional and work ethics (responsible use of social media Facebook, WA, Twitter etc.)	
5.2	Introduction to Intellectual Property Rights	
5.4	Ethical codes of conduct in business and corporate activities (Personal ethics, conflicting values, choosing a moral response and making ethical decisions)	

06	Employment Skills	07
6.1	Group Discussion	
6.2	Resume Writing	
6.3	Interview Skills	
6.4	Presentation Skills	
6.5	Statement of Purpose	
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Assessment:

List of Assignments

1. Report Writing(Theory)
2. Technical Proposal
3. Technical Paper Writing(Paraphrasing a published IEEE Technical Paper)
4. Interpersonal Skills(Group activities and Role plays)
5. Interpersonal Skills(Documentation in the form of soft copy or hard copy)
6. Meetings and Documentation(Notice, Agenda, Minutes of Mock Meetings)
7. Corporate ethics(Case studies, Role plays)
8. Writing Resume and Statement of Purpose

Term Work

Term work shall consist of all assignments from the list. The distribution of marks for term work shall be as follows:

Book Report	10 marks
Assignments:	10 marks
Project Report Presentation:	15 marks
Group Discussion:	10 marks
Attendance:	05 marks

References:

1. Fred Luthans, "Organizational Behavior", Mc GrawHill,
2. Lesiker and Petit, "Report Writing for Business ",McGrawHill
3. R. Subramaniam, "Professional Ethics" Oxford University Press
4. Huckin and Olsen, "Technical Writing and Professional Communication ",McGraw
5. Raman and Sharma, Fundamentals of Technical Communication, Oxford University Press
6. Hill Wallace and Masters, "Personal Development for Life and Work", Thomson Learning.
7. Heta Murphy, "Effective Business Communication ",McGraw Hill, edition
8. R.C Sharma and Krishna Mohan, "Business Correspondence and Report Writing",
9. Raman Sharma, "Communication Skills", Oxford University Press
10. B N Ghosh, "Managing Soft Skills for Personality Development ",Tata McGraw Hill
11. Dufrene, Sinha, "BCOM", Cengage Learning, 2nd edition
12. Bell. Smith, "Management Communication" Wiley India Edition, 3rd edition.
13. Dr. K. Alex, "Soft Skills", S Chand and Company
14. Robbins Stephens P., "Organizational Behavior", Pearson Education
15. <https://grad.ucla.edu/asis/agep/advsopstem.pdf>