



List of Courses Focus on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework

Department : *Industrial and Production Engineering*

Programme Name : *B.Tech.*

Academic Year : 2018-19

Courses which focuses on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework:

Sr. No.	Course Code	Name of the Course
01.	IP01PMC01	Induction Training Programme
02.	IP02THS01	English
03.	IP02THS02	Environmental Sciences



Scheme and Syllabus

SCHEME OF EXAMINATION										
B.TECH (FOUR YEAR) DEGREE COURSE										
FIRST YEAR , INDUSTRIAL PRODUCTION ENGINEERING										
SEMESTER I (COURSE-B)										
EFFECTIVE FROM SESSION 2018-19										
SL. NO.	SUBJECT CODE	SUBJECTS	PERIODS/WEEK			EVALUATION SCHEME			CREDITS	
			L	T	P	IA	ESE	TOTAL		
THEORY										
1	IP01TBS01	MATHEMATICS-II	3	1	0	30	70	100	4	
2	IP01TBS02	CHEMISTRY	3	1	0	30	70	100	4	
3	IP01TES01	PROGRAMMING FOR PROBLEM SOLVING	3	0	0	30	70	100	3	
4	IP01TES02	ENGINEERING MECHANICS	3	0	0	30	70	100	3	
PRACTICAL										
1	IP01PBS01	CHEMISTRY LAB	0	0	3	30	20	50	1.5	
2	IP01PES01	PROGRAMMING FOR PROBLEM SOLVING LAB	0	0	3	30	20	50	1.5	
3	IP01PES02	WORKSHOP & MANUFACTURING PRACTICES	1	0	3	30	20	50	2.5	
4	IP01PES03	ENGINEERING MECHANICS LAB	0	0	2	30	20	50	1	
5	IP01PMC01	INDUCTION TRAINING PROGRAMME	-	-	2	-	-	-	-	
TOTAL									20.5	
IA - INTERNAL ASSESSMENT ESE - END SEMESTER EXAM. L- LECTURE T-TUTORIAL P-PRACTICAL										



SCHEME OF EXAMINATION										
B.TECH (FOUR YEAR) DEGREE COURSE										
FIRST YEAR , INDUSTRIAL PRODUCTION ENGINEERING										
SEMESTER II (COURSE-A)										
EFFECTIVE FROM SESSION 2018-19										
SL. NO.	SUBJECT CODE	SUBJECTS	PERIODS/WEEK			EVALUATION SCHEME			CREDITS	
			L	T	P	IA	ESE	TOTAL		
THEORY										
1	IP02TBS03	PHYSICS	3	1	0	30	70	100	4	
2	IP02TES03	BASIC ELECTRICAL ENGINEERING	3	1	0	30	70	100	4	
3	IP02TBS04	MATHEMATICS-I	3	1	0	30	70	100	4	
4	IP02THS01	ENGLISH	3	0	0	30	70	100	3	
5	IP02THS02	ENVIRONMENTAL SCIENCES	3	0	0	0	
PRACTICAL										
1	IP02PBS02	PHYSICS LAB	0	0	3	30	20	50	1.5	
2	IP02PES04	BASIC ELECTRICAL ENGINEERING LAB	0	0	2	30	20	50	1	
3	IP02PES05	ENGINEERING GRAPHICS & DESIGN	1	0	3	30	20	50	2.5	
TOTAL									20	
IA – INTERNAL ASSESSMENT ESE – END SEMESTER EXAM. L- LECTURE T-TUTORIAL P-PRACTICAL										

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Chemistry

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(Chemical)



Subject code	L	T	P	Credit
IP02THS01/ ENGLISH	3	0	0	3

1. Vocabulary Building

The concept of Word Formation, Root words from foreign languages and their use in English, Acquaintance with prefixes and suffixes from foreign languages in English to form derivatives. Synonyms, antonyms, and standard abbreviations.

2. Basic Writing Skills

Sentence Structures , Use of phrases and clauses in sentences , Importance of proper punctuation , Creating coherence , Organizing principles of paragraphs in documents , Techniques for writing precisely

3. Identifying Common Errors in Writing

3.1 Subject-verb agreement, Noun-pronoun agreement, Misplaced modifiers, Articles, Prepositions, Redundancies, Clichés

4. Nature and Style of sensible Writing

Describing, Defining, Classifying, Providing examples or evidence, Writing introduction and conclusion.

5. Writing Practices

Comprehension, Précis Writing, Essay Writing.

6. Oral Communication (This unit involves interactive practice sessions in Language Lab)

- Listening Comprehension
- Pronunciation, Intonation, Stress and Rhythm
- Common Everyday Situations: Conversations and Dialogues
- Communication at Workplace
- Interviews
- Formal Presentations

Suggested Readings:

- (i) Practical English Usage. Michael Swan. OUP. 1995.
- (ii) Remedial English Grammar. F.T. Wood. Macmillan.2007
- (iii) On Writing Well. William Zinsser. Harper Resource Book. 2001
- (iv) Study Writing. Liz Hamp-Lyons and Ben Heasley. Cambridge University Press. 2006.
- (v) Communication Skills. Sanjay Kumar and PushpLata. Oxford University Press. 2011.
- (vi) Exercises in Spoken English. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

M.S.
31/7/18



CODE/SUBJECT	L	T	P	CREDIT
IP02TMC01/ENVIRONMENTAL SCIENCES	3	0	0	0

ENVIRONMENTAL STUDIES

~~GR-4~~ NC 04 class
Ghwal

Introduction to environmental studies: Multidisciplinary nature of environmental studies; Scope and importance; Concept of sustainability and sustainable development. Ecosystems: Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries). Natural Resources Renewable and Non-renewable Resources: Land resources and land use change; Land degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state). Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies. Biodiversity and Conservation: Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India;

Biodiversity patterns and global biodiversity hot spots. India as a mega-biodiversity nation; Endangered and endemic species of India. Threats to biodiversity: Habitat loss, poaching of wildlife, man wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and informational value. Environmental Pollution: Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution. Nuclear hazards and human health risks. Solid waste management: Control measures of urban and industrial waste. Pollution case studies. Environmental Policies & Practices. Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD). Nature reserves, tribal populations and rights, human wildlife conflicts in Indian context. Human Communities and the Environment, Human population growth: Impacts on environment, human health and welfare. Resettlement and rehabilitation of project affected persons; case studies. Disaster management: floods, earthquake, cyclones and landslides. Environmental movements Chipko, silent valley, Bishnois of Rajasthan. Environmental ethics: role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi). Field work: Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc. Visit to a local polluted site-Urban/Rural/Industrial/Agricultural. Study of common plants, insects, birds and basic principles of identification. Study of simple ecosystems-pond, river etc.

Suggested Readings:

1. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
2. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36--37.
3. Sengupta, R. 2003. Ecology and economics: An approach to sustainable development. OUP.
4. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.

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3/17/18