

COURSE TEMPLATE

1	Deptt/Centre proposing the course	Industrial Design Section, IDD Centre
2	Course Title	CREATIVITY AND INNOVATION
3	L-T-P Structure	2-0-4
4	Credits	4
5	Course number	DIL-110 (or any other)
6	Status	Engineering Arts and Science (EAS) For B.Tech 1 st Year
7	Pre-requisition	Nil

8	Status vis-a-vis other courses	
8.1	Overlap with any UG/PG course of the Deptt/Centre	10% DIL 721
8.2	Overlap with any UG/PG course of other Deptt./Centre	10% AM
8.3	Supercedes any existing course	Nil

9	Not allowed for	N.A.
10	Frequency of Offering	X Every Sem O 1st Sem O 2nd Sem O Either Sem
11	Faculty who will teach the course	S.K. Atreya, I.P. Singh
12	Will the course require any visiting faculty?	Naveen Rampal, Parag Anand

13	Course objective As the world becomes more complex, numerous environmental, social, commercial and other challenges have emerged, which need to be addressed by engineers, designers and other creative professionals in a corporate world within a short time. This course teaches the students to harness their creative potential to rationally increase number of new ideas and prepares the students of science, engineering, design and entrepreneurship in professional innovation skills to provide solutions in their respective roles and areas.
14	Course contents (About 100 Word, Include laboratory/design activities): How human mind works; Seeing – Perception-Visualization-Cognitive flexibility-Viewpoints-Isolating functional challenges- simplicity-need-comfort-play-satisfaction-pleasure-values-traditions-trends-inhibitions-Courage to innovate-Feasibility-Form & Function-Methods of Creativity, De-stressing-Intuition-ESP-Telepathy-Lateral thinking-Enlightenment-Ideas sorting and converging-Design communication-Quantity Vs Quality-Managing innovation Strategy-Ethics-Presentation & Convincing-Patenting-Idea dynamics- exercises to make students understand the process of innovation.

15. Lecture Outline

Module No.	Topic	No. of Hours
1	How do we think	2
2	The art of seeing	2
3	Getting others view-point	2
4	Isolating problems	2
5	Methods of creativity	2
6	Methods of creativity	2
7	Idea generation	2
8	Experimentation	2
9	Concept development	2
10	Presentation skills	2
11	Mking use of the team	2
12	Patenting	2
COURSE TOTAL (14 times 'L')		28

16. Brief description of tutorial activities

17 Brief description of laboratory activities

Module No.	Experiment description	No. of Hours
1	Creative Exercises	14
2	Exposure to real problems	14
3		
4		
COURSE TOTAL (14 times 'P')		28

18. Suggested texts and reference materials

STYLE: Author name and initials, Title, Edition

"Seeds of the Future" By John Christopher Jones
 "Total Creativity" by David Tanner
 "Lateral Thinking" By Edward de Bono
 "Serious Creativity" by Edward de Bono
 "De Silva Mind Control Method" by Jose Silva
 "Design Mehods" By Dixon
 "Design Methods" By Woodson

19. Resources required for the course

19.1	Software	CAD, Graphic Software
19.2	Hardware	CAD Workstations
19.3	Hardware	Model Workshop