

EVENT CALENDER FOR BAMBOO TECHNOLOGY FOR CONSTRUCTION AND INDUSTRIAL APPLICATIONS

1.1 FIRST SEMESTER			TIME FRAME	TIME FRAME	RESOURCE PERSON
Course no	BT 101		CERTIFICATE COURSE	P.G DIPLOMA	
Course Title	Bamboo Technology Overview		AT CGBMT CENTRE	(BY MAIL)	
S.L NO	UNIT I	Overview of course structure			
1	1	Introduction to the course concept	1/8/2011	1/8/2011	CGBMT
2	2	Employment and enterprise through bamboo technology		2/8/2011	CGBMT
3	3	A visual tour through bamboo technology applications		3/8/2011	CGBMT / NMBA *
	UNIT II	History of Bamboo Technology			
4	1	Historical overview of bamboo and its applications	4/8/2011	4/8/2011	CGBMT
5	2	Bamboo based civilisations		5/8/2011	CGBMT
6	3	History of Bamboo Related Research and Development		6/8/2011	CGBMT
	UNIT III	Potential of bamboo based economy – enterprise and employment opportunities			
7	1	Sailent data on bamboo industries	8/8/2011	8/8/2011	CGBMT / NMBA * / IPIRTI
8	2	Highlights of bamboo based housing		9/8/2011	CGBMT / NMBA * / IPIRTI
9	3	Overview of Employment Opportunities		10/8/2011	CGBMT /NMBA * / IPIRTI
	UNIT IV	Bamboo for rural and tribal development			
10	1	Rural and Tribal India - a socio-economic overview	11/8/2011	11/8/2011	CGBMT / MA
11	2	Model village based on bamboo industry & housing		12/8/2011	
12	3	Implementations in rural and tribal India		13/8/2011	
	UNIT V	Environmental impact of bamboo			
13	1	Environment basics	16/8/2011	16/8/2011	CGBMT / IWST / SABF
14	2	Bamboo for Environment		17/8/2011	CGBMT / IWST
15	3	Social impact		18/8/2011	CGBMT
		I TEST			
		Certificate course : Viva(Oral test)			
		Diploma course : Test(One day)		19/8/2011	
		P,G Diploma course : Online Test			

	Course Code	BT102			
	Course Title	Bamboo - Properties, Plantation and Harvesting			
	UNIT I	Properties of Bamboo			
16	1	Technical properties of Bamboo - Physical, Chemical and Mechanical	20/8/2011	22/8/2011	MA
17	2	Use and Challenges of the natural properties of Bamboo		23/8/2011	IWST / IPIRTI
18	3	Precautions, enhancement and avoidance of weakness -- Biodegradability		24/8/2011	IWST / IPIRTI
	UNIT II	Species, sizes, selection and grading			
19	1	Botanical overview	24/8/2011	25/8/2011	IWST / IPIRTI
20	2	Selection and grading		26/8/2011	IWST / IPIRTI
21	3	Quality control		27/8/2011	IWST / IPIRTI
	UNIT III	Environmental conditions for Bamboo growth (Soil, irrigation, crop cycle and flowering)			
22	1	Bamboo cultivation	27/8/2011	28/8/2011	IWST / FRHT
23	2	Crop cycle of various species		29/9/2011	IWST / IPIRTI
24	3	Flowering		30/9/2011	IWST / IPIRTI
	UNIT IV	Bamboo Ecology – propagation by Tissue Culture, Silvi Culture			
25	1	Tissue culture & Silvi culture - Environmental conditions for bamboo growth	2/9/2011	2/9/2011	IWST
26	2	Propagation of DS, Artificial induction of flowering, Different Propagation methods		3/9/2011	IWST
27	3	Bamboo hybridization - Bamboo biomass production of industrial species & agroforestry practices		5/9/2011	IWST
	UNIT V	Bamboo Plantation Management and Harvesting -- from site selection to storage			
28	1	Bamboo plantation management	6/9/2011	6/9/2011	IWST
29	2	Bamboo plantation		7/9/2011	IWST
30	3	Harvesting		8/9/2011	IWST
		Visit to plantation- within the dates	9/9/2011		
		II TEST / Viva		9/9/2011	

	Course code	BT 103			
	Course Title	Enhancement of natural durability of bamboo			
	UNIT I	Methods of protection			
31	1	Various traditional & Natural Protection methods	10/9/2011	10/9/2011	IWST / IPIRTI
32	2	Pastes & diseases of bamboo		12/9/2011	IWST / IPIRTI
33	3	Types of Preservatives & chemical treatment & bamboo seasoning.		13/9/2011	IWST / IPIRTI
	UNIT II	Protection by Design & Maintenance			
34	1	Design consideration for protection	14/9/2011	14/9/2011	MA / IPIRTI
35	2	Protection by Chemical preservatives		15/9/2011	IWST / IPIRTI
36	3	Coating and Maintenance		16/9/2011	IWST / IPIRTI
	UNIT III	Environment, Health and Safety			
37	1	EHS basics	17/9/2011	17/9/2011	CGBMT / IWST
38	2	EHS Practices		18/9/2011	IPIRTI
39	3	EHS Plan			
	UNIT IV	Workshop I - This will be to give practical experience for Treatment of Bamboo culms.	12&14	19/9/2011	IWST / IPIRTI
	UNIT V	Workshop II -This will demonstrate the Finishing of Bamboo for using for various uses.	15&17	20/9/2011	SABF / NID
		III Test	21/9/2011	21/9/2011	

	Course Code	BT 104			
	Course Title	Joinery and Prefabrication			
	UNIT I	Basic rules of using a bamboo in construction (how to avoid crushing and splitting)			
40	1	Joints, their structural requirements, types of joints	22/9/2011	22/9/2011	MA
41	2	Joining Materials, tools techniques (manual & mechanic tools)		23/9/2011	CGBMT / MA / IPIRTI
42	3	Joinery Techniques & Testing		24/9/2011	IPIRTI
	UNIT II	Methods of Joining & Joining Material			
43	1	Traditional methods of Joining	27/9/2011	26/9/2011	CGBMT / MA
44	2	Contemporary joining techniques		27/9/2011	CGBMT / MA
45	3	Structural & non-structural joints		28/9/2011	CGBMT / MA
	UNIT III	Prefabrication			
46	1	Prefabrication with Bamboo	30/9/2011	29/9/2011	CGBMT / MA
47	2	Furniture, Doors and windows, frames, louvers, roof truss and joints		30/9/2011	CGBMT / MA
48	3	Bridges		1/10/2011	CGBMT / MA
	UNIT IV	Workshop III --will give hands on training of Joinery of Bamboo	22 TO 24	22 TO 24	CGBMT / MA
	UNIT V	Workshop IV --Student will be required to make a Prefabricated component	26 TO 28	26 TO 28	CGBMT / MA
		IV Test	1/10/2011	2/10/2011	

	Course Code	BT 105			
	Course Title	Bamboo Handicrafts Cottage Industry and product strategy			
	UNIT I	Techniques used in making bamboo handicrafts			SABF / NID
49	1	Sliver, strips, sticks making (Manual & mechanical method)	10/10/2011	10/10/2011	SABF / NID & IPIRTI
50	2	Glueing		11/10/2011	SABF / NID
51	3	Presevation by color & finishing		12/10/2011	SABF / NID
	UNIT II	Bamboo Blinds, Weaving, bending and sculpting			
52	1	Bamboo blinds and their types	13/10/11	13/10/2011	IPIRTI / SABF / INDUSTRY *
53	2	Weaving -- Different types of Weaving		14/10/2011	SABF / NID
54	3	Bamboo bending for furniture's ; Sculpting etc		15/10/2011	SABF / NID
	UNIT III	Bamboo Furniture, Components - Present, past and future			
55	1	Product specifications & Market perceptions	15/10/2011	16/10/2011	SABF / NID
56	2	Materials for Bamboo furniture		17/10/2011	SABF / NID
57	3	Traditional & Modern furniture's		18/10/2011	SABF / NID
	UNIT IV	Workshop V - Handicrafts, student will be required to make a handicraft item.	10 TO 12	10 TO 12	SABF / NID
	UNIT V	Workshop VI - Furniture, student will be required to make a furniture	13 TO 15	13 TO 15	SABF / NID
		V Test	20/10/2011	20/10/2011	
	Course Code	CEC 141			
	Course Title	Cultural Education	26/10/2011	26/10/2011	IFA * : Lecture by Cultural Personality *
	Course Code	RDC 141			
	Course Title	Soial Service	Two day	Two day	Habitat for Humanity *
		Semester Exam - November 2011 finish by 2nd week			

2.1 SECOND SEMESTER					
Course Code	BT 201				
Course Title	Bamboo Building Construction				
UNIT I	Basic Engineering drawing and building design				
58	1	Elementary Engineering Drawing (Certificate Course)	5/12/2011	5/12/2011	MA / CGBMT & IPIRTI
		Structural Design (P.G Diploma course)			
59	2	Basics of building design		6/12/2011	MA / CGBMT
60	3	BIS code for bamboo		7/12/2011	MA / CGBMT / IPIRTI
UNIT II	Foundation				
61	1	Types of foundations	8/12/2011	8/12/2011	MA / CGBMT
62	2	Use of bamboo in various types of foundations		9/12/2011	MA / CGBMT
63	3	Technique of using bamboo in foundation construction		10/12/2011	MA / CGBMT
UNIT III	Bamboo Walls				
64	1	Bamboo walls -- Made of bamboo, boards, etc	12/12/2011	12/12/2011	MA / CGBMT
65	2	Bamboo composite walls		13/12/2011	MA / CGBMT
66	3	Bamboo Walling systems -- Testing loads		14/12/2011	MA / CGBMT
UNIT IV	Roof Structure				
67	1	Light bamboo structure -- Trusses, frames etc.	15/12/2011	15/12/2011	MA / CGBMT
68	2	Roof types -- 2-way, 4-way, hip roof, hip roof with ceiling etc		16/12/2011	MA / CGBMT
69	3	Roof coverings		17/12/2011	MA / CGBMT
UNIT V	Finishing and Maintenance of Bamboo Buildings				
70	1	Traditional method of finishing	19/12/2011	19/12/2011	MA / CGBMT
71	2	Modern finishing material		20/12/2011	MA / CGBMT
72	3	Maintenance of bamboo buildings		21/12/2011	MA / CGBMT
UNIT VI	Workshop VI - Bamboo Building Construction (on week end)		12TO 21	12TO 21	MA / CGBMT
UNIT VII	Workshop VII- Bamboo Building Construction (on week end)		12TO 21	12TO 21	MA / CGBMT
	Visit - Live Site				
	VI Test/Viva		22/12/2011	22/12/2011	

Course Code	BT 202				
Course Title	Construction of Bamboo Structures				
UNIT I	Bridges				
73	1	Basics of bridges – types and classification	2/1/2012	2/1/2012	CIVIL - AID TECHNO CLINIC PVT LTD * / MA
74	2	Structural elements of Bamboo bridges		3/1/2012	MA
75	3	Other Bamboo Bridges		4/1/2012	MA
UNIT II	Scaffoldings and Temporary Structures				MA / CIVIL - AID TECHNO CLINIC PVT LTD *
76	1	Scaffolding for small houses, buildings etc.	5/1/2012	5/1/2012	
77	2	Scaffolding for multisoored bldgs and other complex buildings.		6/1/2012	
78	3	Temporary structures – Tents, Pandals, Treehouses, gazebos & poly house etc...		7/1/2012	
UNIT III	Spatial Structures				
79	1	Bamboo slat Trusses	9/1/2012	9/1/2012	IPIRTI
80	2	Arches & beams -- Beams , laminated arches, I & box beams, catenary arches		10/1/2012	STRUCTURAL ENGG *
81	3	Bamboo Domes		11/1/2012	MA
UNIT IV	Roads				SABF
82	1	Basics of Roads	12/1/2012	12/1/2012	SABF / CIVIL - AID TECHNO CLINIC PVT LTD *
83	2	Bamboo Technology in Road Construction		13/1/2012	SABF / MA
84	3	Bamboo mats for -- Embankment protection		16/1/2012	
UNIT V	Workshop VII - Bamboo Structures, student will be required to make a structure		5 TO 11 JAN	5 TO 11 JAN	
	VII Test/Viva		20/1/2011	20/1/2011	

Course Code	BT 203				
Course Title	Bamboo Based Industries				
	UNIT I	Manufacturing of single bamboo materials (bamboo mat board – BMB, Veneers, Bamboo Flooring board)			
					IPIRTI / IWST
85	1	Bamboo mat Based products	17/1/2012	17/1/2012	IPIRTI
86	2	Bamboo flooring		18/1/2012	IPIRTI
87	3	Bamboo veneers		19/1/2012	IPIRTI
	UNIT II	Bamboo Composite Material (Bamboo mat veneer composites, Bamboo particle board, Bamboo mat corrugated sheet (BMCS), Composite flooring board)			
88	1	Bamboo Mat Corrugated Sheet for Roofing	20/1/2012	20/1/2012	IPIRTI
89	2	Bamboo composite boards & Bamboo composite polymer		21/1/2012	IPIRTI / IWST
90	3	Composite flooring boards		23/1/2012	IPIRTI
	UNIT III	Bamboo Wood and Laminated bamboo products			
91	1	Bamboo Wood -- A future wood	24/1/2012	24/1/2012	IPIRTI
92	2	Laminated bamboo		25/1/2012	IPIRTI
93	3	Other Bamboo products : Match stick agarbathi, trays etc.		27/1/2012	CGBMT / NID / IPIRTI
	UNIT IV	Paper, packaging and textile industry			
94	1	Paper -- Paper from Bamboo	28/1/2012	28/1/2012	CGBMT / HINDUSTAN PAPER MILLS *
95	2	Textile -- Bamboo based fabrics		31/1/2012	CGBMT
96	3	Bamboo based Packaging		1/2/2012	CGBMT / NID
	UNIT V	Bamboo shoots and miscellaneous – liquid diesel, activated charcoal			
97	1	Activated Charcoal from Bamboo & Bamboo charcoal	2/2/2012	2/2/2012	IISC *
98	2	Diesel -- Production of Liquid Diesel		3/2/2012	IWST
99	3	Bamboo shoots & food items , commercial products & storage.		4/2/2012	IWST / SABF / CFTRI *
		VIII Test/Viva	5/2/2012	5/2/2012	

Course Code	BT 204				
Course Title	Disaster Management				
	UNIT I	Use of bamboo structures in calamity prone areas – methods and advantages			
100	1	Advantages of bamboo construction in earthquake and flood prone areas	6/2/2012	6/2/2012	CGBMT/MA
101	2	Earthquake friendly designs and construction		7/2/2012	IPIRTI/
102	3	Flood resilient designs and constructions		8/2/2012	CGBMT
	UNIT II	Effect of natural calamities on bamboo structures			
103	1	Seismic behavior of bamboo structures	9/2/2012	9/2/2012	CGBMT
104	2	Bamboo structure in flood /tsunami / typhoon pronareas		10/2/2012	CGBMT / IPIRTI
105	3	Restoration after calamity – requirements and methods		11/2/2012	CGBMT
	UNIT III	Role of Temporary & permanent bamboo structures in rescue and rehabilitation operations; Resources and Management			CGBMT / MA
					MA
106	1	Temporary or Interim Shelter		13/2/2012	IPIRTI / NMBA
107	2	Prefab folding bridges	13/2/2012	14/2/2012	
108	3	Permenent Bamboo structures -- Prefabricated houses		15/2/2012	
					CGBMT / SEEDS *
	UNIT IV	Government and non-government initiatives for disaster management			CGBMT / SEEDS *
					CGBMT / SEEDS *
109	1	Various NGO engaged in disaster management and rehabilitation		16/2/2012	SEEDS * / HABITAT FOR HUMANITY *
110	2	Government Initiative	16/2/2012	17/2/2012	
111	3	International organisations -- their role in DM		18/2/2012	CGBMT/SEEDS *
	UNIT V	Workshop VIII -- Construction of Interim Shelter -- Emergency Shelter - tents, etc.			
		IX Test/Viva	19/2/2012	19/2/2012	

	Course Code	BT 205			
	Course Title	Entrepreneurship development			
	UNIT I	Basics of costing and estimation			CGBMT / MA
			20/2/2012		
112	1	Elementary Costing -- Elements of cost analysis		20/2/2012	NID / SABF
113	2	Measurement and Estimates -- Measurements		21/2/2012	NID / CGBMT / MA
114	3	Estimates of Work (EOW) -- Preparing Estimates of Work		22/2/2012	
	UNIT II	Basics of finance and business Management			
			23/2/2012		
115	1	Setting up a business – steps and statutory requirements		23/2/2012	CGBMT / IIM * / EDI *
116	2	Accounting, Taxation overview and process; Labour Laws		24/2/2012	CA * / R.M SWAMY *
117	3	Banking and Finance		25/2/2012	NABARD
	UNIT III	Government sponsored self employment finance schemes and employment generation			RGRHCL * / EDI *
			27/2/2012		
118	1	Government sponsored self employment finance schemes		27/2/2012	CGBMT
119	2	Prospective		28/2/2012	
120	3	Employment generation and livelihood security.		29/2/2012	Mr.TGC Prasad *
		Practical -- Students to do a scenario planning – process flow of setting up a business			
	UNIT IV	Material sourcing and management – sales and marketing			
			1/3/2012		
121	1	Sourcing and procurement -- developing supply sources		1/3/2012	GDS/Parmeshwaran(Bamboo Pecker)
122	2	Sales and Marketing Basics -- identification of market size, market growth		2/3/2012	NID / IIM *
123	3	Introduction to Supply Chain -- through dealers, shopping malls, internet shops,		3/3/2012	NMBA * / SABF
	UNIT V	GREEN makes a good business sense - policy			
			5/3/2012	5/3/2012	CGBMT / MA
124	1	GREEN Buildings -- The future trend.		5/3/2012	IGBC *
125	2	Green products -- Tax benefits etc., Government policies		6/3/2012	BCIL *
126	3	Market overview of Green Products - Future Senario		7/3/2012	
	Course Code	CRC 241			
	Course Title	Comparitive study of Religion	one day	one day	Book+Quiz
	Course Code	GKC 241			
	Course Title	G.K. & Current Affairs	one day	one day	Quiz
		X Test/Viva	10/3/2012	10/3/2012	
		Preapartion	18th March,2012		
		End Semester exam	19-23 March		
		Semester B R E A K	24 -1st April		
		Third Semester start	2nd April		

	3.1	THIRD SEMESTER			
	Course Code	BT 301 (Electives)	April-May	April-May	
	Course Title	Project Work/Thesis - 8 weeks			Industry Oraganisation :
	Electives	Bamboo propogation & plantation			IWST, NID, BAMBOO PECKER,IPIRTI, TIMPACK
		Crafts Training -- Project --students will be required to undergo training at a Bamboo crafts unit.	April-May	April-May	KERALABAMBOO FACTORY,MANASARAM ETC.
		Industrial Training -- Attachment with industry -- this will involve training at a Bamboo based industry.	April-May	April-May	
		Constructure of Bamboo structure -- Project work -- this will involve Designing and constructing a simple Bamboo Based Building.	April-May	April-May	

NOTE:-**1. LECTURES AT CGBMT CAN BE ATTENDED BY ANYBODY.****2. UNDERFINALISATION (*)****LEGEND OF RESOURCE ORGANISATION:-**

MA	MANASARAM ARCHITECTS
CGBMT	CENTRE FOR GREEN BUILDING MATERIALS & TECHNOLOGY
NID	NATIONAL INSTITUTE OF DESIGN, BANGALORE
IPIRTI	INDIAN PLYWOOD INDUSTRIES RESEARCH AND TRAINING INSTITUTE
SABF	SOUTH ASIA BAMBOO FOUNDATION
IWST	INSTITUTE OF WOOD SCIENCE AND TECHNOLOGY
NMBA	NATIONAL MISSION ON BAMBOO APPLICATIONS
EDI	ENTERPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA
CFTRI	CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
FRLHT	FOUNDATION FOR REVITALISATION OF LOCAL HEALTH TRADITIONS, BANGALORE
IABARI	NATIONAL BANK FOR AGRICULTURAL AND RURAL DEVELOPMENT
IFA	INDIA FOUNDATION FOR THE ARTS
IGBC	INDIAN GREEN BUILDING COUNCIL, HYDERABAD
BCIL	BIODIVERSITY CONSERVATION INDIA (PVT) LTD. BANGALORE
RGRHC	RAJIV GANDHI RURAL HOUSING CORPORATION LIMITED, BANGALORE
IISc	INDIAN INSTITUTE OF SCIENCE , BANGALORE
SEEDS	SUSTAINABLE ENVIRONMENT AND ECOLOGICAL DEVELOPMENT OF SOCIETY,INDIA.
	HABITAT FOR HUMANITY,BANGALORE
	BAMBOO PECKER,BANGALORE
	HINDUSTAN PAPER MILLS,BANGALORE

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