Gyanmanjari Innovative University

Course Syllabus
Gyanmanjari Diploma Engineering College
Semester-1

Subject: Basic Material and Products - DETID11201

Type of course: Professional Core

Prerequisite: NIL

Rationale: The knowledge of basic materials and products shall help the learner to enable theiruse,through methods of construction, for designing Interior spaces. The knowledge of suchmaterials & products along with various construction techniques & knowledge of servicesenable students to achieve desired design outcome.

TeachingandExaminationScheme:

TeachingScheme			Credits	ExaminationMarks					Total Marks
CI	T	P	C	TheoryMarks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
04	00	02	05	60	30	10	20	30	150

Legends:CI-ClassRoomInstrctions;T–Tutorial;P-Practical;C–Credit;ESE-EndSemester Examination;MSE MidSemesterExamination;V–Viva;CA-ContinuousAssessment;ALA-ActiveLearningActivities.

CourseContent:

Sr. No	Course Content	Hrs	% Weightage
1	**Common Building Materials-I** Identify the various types ofstones and its application, Differentiate betweendifferent types of stones, List the types of stones, State the properties anduses of stones. State the properties anduses of stones, Name and define the clayproducts-terracotta,ceramic, earthenware,stoneware & porcelain, Draw various types of rooftiles, Name and draw types andshapes of bricks. Define Terracotta, State the advantages,disadvantages, propertiesand uses of Terracotta. List the properties andtypes of Cement, Lime,Sand, Aggregates, Describe the types and usesof Concrete, Mortars andPlasters, List the properties and usesof gypsum.	21	35
2	**Common Building Materials-II** Select the varieties of timber, Draw & label the crosssection of timber, Justify the uses, qualitiesand properties of timber, Name and sketch thedefects in timber, Differentiate between	21	35

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	hardwoods and soft woods, List the uses of bamboo, Select various woodproducts as per the needs, State the uses & propertiesof veneers and plywood, Differentiate betweenVeneers and Plywood, Justify the uses of variouswood products.		
3	**Electrical & Lighting Material** List and describe the typesof wires and wiring system, Sketch the various types ofelectrical fixtures, Sketch electrical andlightfittings	10	15
4	**Floor Coverings** List out types of materialsused for floor coverings, justify importance of floorcoverings **Eco-Friendly Materials** Define eco-friendlymaterials, Select various eco-friendlymaterials.	8	15
		60	**100%**

ContinuousAssessment:

Sr. No	ActiveLearningActivities	Marks
01	**Prepare Rate** Faculty will assign to prepare the market rate of various material individually. Student will prepare report on various materials market rate and upload on GMIU Web Portal.	10
02	**Prepare layout** Faculty will assign to prepare the Electric layout of the student house individually and upload on GMIU Web Portal.	10
03	**Eco-Friendly Material** Faculty will assign to prepare the list of Eco-friendly material with their property in groups. And Upload on GMIU Web Portal.	10
Total		**30**

SuggestedSpecificationtablewithMarks(Theory):60

DistributionofTheoryMarks (RevisedBloom'sTaxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	30%	40%	30%	NA	NA	NA

Note:Thisspecificationtableshallbetreatedasageneralguidelineforstudentsandteachers.Theactualdistribution ofmarksinthequestionpapermayvaryslightlyfromabovetable.

Course Outcome:

Afterlearningthecoursethestudentsshouldbeableto:	
CO1	Select different building materials and products required for construction.
CO2	Identify common building materials as per requirement.
CO3	Select appropriate timber and wood products for different interior work.
CO4	Identify and select various floor covering, light fittings and fixtures for interiors.
CO5	Select eco-friendly materials for environmental concern.

Leaning Software:

1. www.interiordezine.com/finishes/
2. www.surfaces.in
3. www.onlinedesignteacher.com/2016/02/interior-design-materials-finishes
4. www.contractdesign.com/products

InstructionalMethod:

The course delivery method will depend upon the requirement of content and need of students. Theteacherinadditiontoconventionalteachingmethodbyblackboard,mayalsouseanyoftoolssuchasdemonstration,roleplay,Quiz,brainstorming,MOOCsetc.

Fromthecontent10%topicsaresuggestedforflippedmodeinstruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, VirtualLaboratory

TheinternalevaluationwillbedoneonthebasisofActiveLearningAssignment

Practical/Vivaexamination will be conductedat the end ofsemester forevaluationof performanceof studentsin laboratory.

ReferenceBooks:

[1] Building Materials, Gurucharan Singh, Standard Pub, &Dist
[2] Engineering Materials, S. C. Rangawala, Charottar Pub. Anand (India)
[3] Water Supply & Sanitary Engineering, S. C. RangawalaCharottar Pub. Anand (India).
[4] Building Construction, Sushil Kumar, Standard Pub. Delhi