

BPM115 Materials Technology

Level: 1

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY REGULAR SEMESTER

Synopsis:

BPM115 Materials Technology provides students an insight into material properties and their applicability in different buildings, facilities and event venues. Key considerations may include speed of construction, balancing durability with expediency and even corporate image. Students learn to evaluate each material that may make up a component, and several sub-systems that may make up a system to serve a function within a building or during and event. Several systems (e.g weather screens, ventilation fans) would be used to illustrate these considerations so as to demonstrate the rationale for selecting certain materials.

Topics:

- Properties of Major Classes of Materials and Performance of Materials
- Roles of Building Materials
- Classifications of Building Materials
- Need for Intervention
- Main Considerations in Material Selection
- Understanding Building Failures
- Material Selection in a Tender Process
- Quality Assurance and Control
- Handing Over Protocol
- Alternative Building Structures
- Green Building Systems
- Building Systems Function

Textbooks:

BPM115 Study Guide (UDC - SUSS)

ISBN-13: SG-1821

Materials for Architects and Builders 6th Arthur Lyons Taylor & Francis

ISBN-13: 9781351109536

Learning Outcome:

- Define quality assurance/control in the application of material
- Describe the major classes of materials for structure and architectural materials
- Indicate the major strengths/weaknesses of common materials
- List the different criteria in the procurement and selection of material in a project
- Explain the inter-dependability with other discipline in the management of a building
- Discuss alternative materials
- Demonstrate an ability to recommend materials selection for a built environment project
- Appraise the quality of material used in a project

Assessment Strategies - Regular Semester (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	PRE-CLASS QUIZ 1	2
	PRE-CLASS QUIZ 2	2
	PRE-CLASS QUIZ 3	2
	TUTOR-MARKED ASSIGNMENT 1	10
	TUTOR-MARKED ASSIGNMENT 2	14
Overall Examinable Components	Written Exam	70
Total		100

*The information listed is subject to review and change.