



**Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore**  
**Shri Vaishnav Institute of Technology and Science**  
**Choice Based Credit System (CBCS) in Light of NEP-2020**  
**Civil Engineering Department**  
**Generic Elective (First Year)**

COURSE CODE	CATE- GORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
GUCE 102	GE	Building Planning and Construction	60	20	20	0	0	4	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

**Course Educational Objectives (CEOs):**

The students will be able to:

1. Apply the knowledge of engineering fundamentals to understand, the characteristics of basic civil engineering materials.
2. Develop plan, section and apply bylaws and investigate causes and remedies for cracks, have an insight to cost effective construction

**Course Outcomes (COs):**

The students should be able to:

1. Understand provisions of national building code, bye laws and architectural composition
2. Describe building services with their line plan.
3. Do Planning and drawing of building plans efficiently.
4. Understand the cracks developed in members and remedial measures for the same

**Syllabus**

**UNIT I**

**12 Hrs.**

**Planning of Building:** Introduction to National Building Code, Building byelaws and terminologies, principles of planning, Plan section and Elevation of building, Sub-structure, and Super structure, Doors and windows: location of doors and windows, types of doors, types of windows, Staircase: requirements of good staircase, types.

**UNIT II**

**12 Hrs.**

**Building Amenity:** Introduction and application: -Building Amenities like water supply and drainage, electrification, fire safety, thermal insulation: sun shading devices, acoustics of building. Line plan of building services like Water supply system and Electrification of building.

**UNIT III**

**12 Hrs.**

**Interior Design:** Functional requirement of interior designer, basic elements of interior design, Design problems: Interior design for spacious rooms, comfortable rooms, theme rooms, living area, cooking area, drinking area dining area, home offices, sleeping area, bathrooms, public/private buildings.



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#### UNIT IV

**12 Hrs.**

**Building Material and Construction:** Cement: introduction, ingredients of cement, grade of concrete, properties. Steel: definition, types of steel, uses of steel, market forms of steel used in construction, brick masonry, stone masonry.

#### UNIT V

**12 Hrs.**

**Building Maintenance:** Different types of Deterioration in building, Deterioration of concrete, deterioration of masonry works, prevention of cracks and leaks, cost effective construction, anti-termite treatment in building.

#### Text Books:

1. R.S. Malik & G.S. Meo, Building Design and Drawing, Computech Publications Limited.
2. S.V Deodhar, Building Science & Planning, Khanna Publishers, Delhi.
3. Rangwala, Building Construction, Charotar Publishing House Pvt. Ltd, 2016

#### References:

1. Shah, Kale & Patki; Building Design and Drawing; TMH
2. Gurcharan Singh & Jagdish Singh Building Planning, Design and Scheduling, Standard Publishers Distributors.