## 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 (Undergraduate Courses)**

### First Year

COURSE CODE	CAT- EGO- RY	COURSE NAME	TEACHING &EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L T	T	P	CREDITS
GUCE104	GE	Road Safety and Management	60	20	20	0	0	4	0	0	4

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

### **Course Educational Objectives (CEOs):**

- 1. To acquire knowledge and understanding of the road environment.
- 2. To inculcate decision making and behavioral skills necessary to survive in the road environment.

### **Course Outcomes (COs):**

The student will be able to

- 1. Generate awareness about number of people dyeing every year in road accidents, traffic rules and characteristics of accident.
- 2. Gain information and knowledge about people responsible for accidents and their duties
- 3. Understand the importance of multidisciplinary approach to planning for traffic safety and rehabilitation
- 4. Impart knowledge and understanding of the causes and consequences of accidents.

UNIT I 12 Hrs.

**Introduction to Road Safety**: Road traffic accidents scenario in India and in world, Road Safety and its importance, Traffic Rules and Driving Behavior, Characteristics of accidents, accidents vs. crash.

UNIT II 12 Hrs.

**Planning for Road safety:** Awareness about rules and regulations of traffic, Assisting Traffic control authorities, Multidisciplinary approach to planning for traffic safety and injury control, Vulnerable Road users: crashes related to pedestrian and bicyclists, their safety, provision for disabled.

UNIT III 12 Hrs.

**Responsibility of Road accidents and Safety measures**: People responsible for accident prevention: Police, Politicians, Community members, Policy makers, Teachers, Parents, Infrastructure authorities, Drivers and Official road safety body, Reasons of students/children have accidents. Four E's of Accidents Prevention: Engineering, Enforcement, Encouragement, Education - by gaining and using knowledge.

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

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UNIT IV 12 Hrs.

**Road Safety Education:** Introduction to Road Safety Education, Five P's of Road safety education: Pre-school road safety education, Practical rather than theory education, Principles of own development as regards to road safety education, Presentations on road safety education, Place for road safety education in syllabus

UNIT V 12 Hrs.

**Traffic Management Systems:** Road Safety Audits and Tools for Safety Management Systems, Road Safety Audit Process, Approach to Safety, Road Safety Improvement Strategies, ITS and Safety.

#### **Textbooks:**

- 1. Kadiyali L.R., Traffic Engineering & Transport Planning, Khanna Publishers, 2003
- 2. Ranade Prabha Shastri, Road Safety Management: Issues and Perspectives, Icfai University Press

### **Reference Books:**

- 1. Indian Roads Congress, Highway Safety Code, IRC: SP-44:1996 4.
- 2. Indian Roads Congress, Road Safety Audit Manual, IRC: SP-88-20.

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