

EMECVAC04 – Driving Ethics and Road Safety

Course Objectives:

- To acquire knowledge and understanding of the road environment.
- To inculcate decision making and behavioral skills necessary to survive in the road environment.
- To impart knowledge and understanding of the causes and consequences of accidents.
- To understand roles and responsibilities in ensuring road safety.

Course Contents:

Unit I: Introduction to Road Safety (4 hours)

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: Planning for Road safety (4 hours)

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: Responsibility of Road accidents and Safety measures (6 hours)

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. 4 E's of Accidents Prevention: 1. Engineering - by altering the environment 2. Enforcement - by imposing laws 3. Encouragement - by the use of publicity campaigns 4. Education - by gaining and using knowledge.

Unit IV: Road Safety Education (4 hours)

Introduction to Road Safety Education. 5 P's of Road safety education: 1. Pre-school road safety education 2. Practical rather than theory education 3. Principles of own development as regards to road safety education 4. Presentations on road safety education 5. Place for road safety education in syllabus.

Unit V: Vehicle fundamental Lab (12 hours)

Components of IC Engines- valve, piston, cylinder, dismantling and assembling of IC Engine, Power transmission system, working principle of two and four stroke engines, Steering, Brake system.

Text Book:

Kadiyali L.R., Traffic Engineering & Transport Planning, Khanna Publishers, 2003.

Reference Books:

TRRL OVERSEAS UNIT, 1991. Towards safer roads in developing countries: a guide for planners and engineers. Crow Thorne: Transport and Road Research Laboratory.

Indian Roads Congress, Highway Safety Code, IRC: SP-44:1996.

Indian Roads Congress, Road Safety Audit Manual, IRC:SP-88-2010.

Course Outcomes:

On completion of the course, learner will be able to

- Generate awareness about number of people dying every year in road accidents, traffic rules and characteristics of accident.
- Gain information and knowledge about people responsible for accidents and their duties
- Understand the importance of multidisciplinary approach to planning for traffic safety and rehabilitation