

Objective of the Course:

- To provide skills for testing pavement material.
- To mix design for Flexible pavement layers
- To impart knowledge on structural and functional evaluation of Flexible pavement

Credit Earned: 2
Students learning outcomes:

After successful completion of the course it is expected that student will be able to,

1. Understand basic highway material test.
2. Design mix proportion for flexible pavement layer.
3. Evaluate binder content of wearing course of flexible pavement.
4. Analyse roughness and deflection of flexible pavement.

Teaching and Examination Scheme

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	IA (M)	CSE (I)	Viva (V)	Term Work (TW)	
0	0	4	02	-	-	-	25	25	100

Detailed Syllabus

Sr No.	Title of Experiment	Number of hours
1	Mix design for Sub – base (GSB) and Base Course (WBM, WMM)	08
2	Mix design of Wearing Course	04
3	Determination of Binder content	06
4	Functional evaluation of pavement surface	04
5	Determination of deflection for flexible pavement under prevailing roadway section	04
6	Preparation of Reports for Various types of Mix Design	02
		28

Suggested Theory Distribution

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
5%	5%	20%	25%	25%	20%

Instructional Method and Pedagogy:

1. Use of Learning Management system like canvas
2. Demonstration through presentations on power point and videos and lectures
3. Brainstorming and group discussion sessions
4. Collaborative learning

Reference Material:

1. Ministry of Road Transport & Highways, MoRTH, 5th Revision
2. IRC 81 – 1997
3. S.K. Khanna , C.E.G Justo and A.Veeragavan, “Highway Engineering” Revised 10th Edition, Nem Chand & Bros., Roorkee
4. Read J. and Whiteoak D. “The shell Bitumen Handbook”, Fifth edition, Shell Bitumen, Thomas Telford Publishing, London