

Institute of Engineering, Pulchowk Campus, Kathmandu
Course Structure 2024
MSc in Transportation Engineering

Year : I

Part I

Teaching Schedule				Examination Scheme			Total	Remarks
SN	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	ENCETR501	Advanced Transportation Engineering	4	40	3	60	100	
2	ENCETR502	Research Methodology and Statistics	4	40	3	60	100	
3	ENCETR503	Traffic Engineering	4	40	3	60	100	
4	ENCETR504	Road Construction Materials and Technology	4	40	3	60	100	
		Total	16	160		240	400	

Year : I

Part II

Teaching Schedule				Examination Scheme			Total	Remarks
S. N.	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	ENCETR551	Operations Research in Transportation System	4	40	3	60	100	
2	ENCETR552	Pavement Engineering	4	40	3	60	100	
3	ENCETR56X	Elective-I	4	40	3	60	100	
4	ENCETR57X	Elective-II	4	40	3	60	100	
		Total	16	160		240	400	

Year : II

Part I

Teaching Schedule				Examination Scheme			Total	Remarks
S. N.	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	ENCETR61X	Elective -III	4	40	3	60	100	
2	ENCETR62X	Elective -IV	4	40	3	60	100	
3	ENCETR601	Project	4	100			100	
		Total	12	180		120	300	

Year: II

Part II

Teaching Schedule				Examination Scheme			Total	Remarks
S. N.	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	ENCETR651	Thesis	16	100			100	

Note: Students will write a thesis in the fourth semester. However, the thesis work must start from the beginning of third semester, which may be associated to the project work. Students can carry out the research thesis with one or more supervisors.

Elective Courses:

Elective courses will be offered as per the availability of resource persons. The lists of electives are as follows:

Elective I:

1. Transport Economics [Code: ENCETR561]
2. Advanced Geotechnical Engineering [Code: ENCETR562]
3. Railway Engineering [Code: ENCETR563]
4. Urban Transport Planning [Code: ENCETR564]

Elective II:

1. Computer Application in Transportation Engineering [Code: ENCETR571]
2. Airport Engineering [Code: ENCETR572]
3. Geo-Informatics in Transportation [Code: ENCETR573]
4. Tunnel Engineering [Code: ENCETR574]

Elective III:

1. Transportation Planning and Management [Code: ENCETR611]
2. Road Asset Management [Code: ENCETR612]
3. Transportation Network Analysis [Code: ENCETR613]

Elective IV:

1. Project Management [Code: ENCETR621]
2. Road Safety [Code: ENCETR622]
3. Public Transportation [Code: ENCETR623]

Further Explanation about Project and Thesis works

The project and thesis component theme could be one of the following:

- Industrial/organizational problem assessment (mainly done at industry/organization)
- Community based problem assessment (mainly done at community)
- Literature based problem assessment (mainly done at institution)
- Analytical or experimental or prototype based problem assessment (mainly done at institution)
- Case study based problem assessment (mainly done at case specific site)
- Field work based problem assessment (mainly done at specific site)
- Any other relevant and deemed suitable by department
- The project component will be of approximately 3 months (full - time) duration

Eligibility and Degree Award:

Eligibility: **BE in Civil Engineering**

Degree Award: **MSc in Transportation Engineering (Civil Engineering)**