

FACULTY OF ENGINEERING
Scheme of Instruction & Examination
and
Syllabi
M.E. I to IV Semester
of
Two Year Post Graduate Degree Programme
In
Civil Engineering
Specialization in Transportation Engineering
(With effect from the academic year 2020– 2021)
(As approved in the faculty meeting held on 2020)



Issued by
Dean, Faculty of Engineering
Osmania University, Hyderabad
2020

SCHEME OF INSTRUCTION & EXAMINATION
M.E. (Civil Engineering) – I – Semester
Specialization in Transportation Engineering

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	PC 1401 TE	Traffic Engineering	3	-	-	3	30	70	3	3
2	PC 1402 TE	Pavement Materials & Characterization	3	1	-	3	30	70	3	4
3		Professional Elective I	3	-	-	3	30	70	3	3
4		Professional Elective II	3	-	-	3	30	70	3	3
5		MC/Open Elective-I	3	-	-	3	30	70	3	3
6		Audit Course I	2	-	-	2	30	70	3	0
Practical/ Laboratory Courses										
7	PC 1451 TE	Traffic Design and Studio Lab	-	-	2	2	25	50	3	1
8	PC 1452 TE	Highway Materials & Pavement Engineering Lab	-	-	2	2	25	50	3	1
Total			16	2	4	20	300	450		18

PC: Professional Core
AD: Audit Courses

PE: Professional Elective
MC: Mandatory Courses

OE: Open Elective

L: Lectures

T: Tutorials

P/D: Practical/Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

Note:

1. Each contact hour is a Clock Hour
2. The duration of the practical class is two clock hours, however it can be extended wherever necessary, to enable the student to complete the experiment

SCHEME OF INSTRUCTION & EXAMINATION
M.E. (Civil Engineering) – II – Semester
Specialization in Transportation Engineering

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1	PC 1403 TE	Urban Transportation Systems Planning	3	1	-	3	30	70	3	4
2	PC 1404 TE	Pavement Systems Engineering	3	1	-	4	30	70	3	4
3		Professional Elective III	3	-	-	3	30	70	3	3
4		MLC/Open Elective-II	3	-	-	3	30	70	3	3
5		Audit Course II	2	-	-	2	30	70	3	0
6	PC 1461 TE	Mini Project	-	-	4	2	100	-	3	2
Practical/ Laboratory Courses										
7	PC 1453 TE	Computational Lab	-	-	2	2	25	50	3	1
8	PC 1454 TE	Road Safety and Audit Lab	-	-	2	2	25	50	3	1
Total			14	2	8	21	300	450		18

PC: Professional Core
AD: Audit Courses

PE: Professional Elective
MC: Mandatory Courses

OE: Open Elective

L: Lectures

T: Tutorials

P/D: Practical/Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

Note:

1. Each contact hour is a Clock Hour
2. The duration of the practical class is two clock hours, however it can be extended wherever necessary, to enable the student to complete the experiment

SCHEME OF INSTRUCTION & EXAMINATION
M.E. (Civil Engineering) – III – Semester
Specialization in Transportation Engineering

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Theory Courses										
1		Professional Elective IV	3	-	-	3	30	70	3	3
2		Professional Elective V	3	-	-	3	30	70	3	3
Practical/ Laboratory Courses										
3	PC 1471 TE	Dissertation Phase I	-	-	20	--	100	-	3	10
Total			9	-	20	20	190	140		16

PC: Professional Core

PE: Professional Elective

OE: Open Elective

L: Lectures

T: Tutorials

P/D: Practical/Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

Note:

1. Comprehensive seminar presentation is required at the end of the semester.
2. Dissertation synopsis is required to be approved within four weeks of registration

SCHEME OF INSTRUCTION & EXAMINATION
M.E. (Civil Engineering) – IV – Semester
Specialization in Transportation Engineering

S. No.	Course Code	Course Title	Scheme of Instruction				Scheme of Examination			Credits
			L	T	P/D	Contact Hrs/Wk	CIE	SEE	Duration in Hrs	
Practical/ Laboratory Courses										
1	PC 1472 TE	Dissertation Phase II	-	-	32	--	100	200	3	16
Total			-	-	32	-	100	200		16

PC: Professional Core

L: Lectures

T: Tutorials

P/D: Practical/Drawing

CIE: Continuous Internal Evaluation

SEE: Semester End Examination (Univ. Exam)

Note:

1. Minimum of two seminar presentation before final viva is required and a comprehensive viva at the end of the semester.

List of Professional Core Courses

S. No.	Course Code	Course Title
1	PC 1401 TE	Pavement Materials and Characterization
2	PC 1402 TE	Urban Transportation Systems Planning
3	PC 1403 TE	Pavement Systems Engineering
4	PC 1404 TE	Design of Highway Infrastructure

List of Professional Elective Courses I to V

S. No.	Course Code	Course Title
1	PE 1416 TE	Traffic Engineering
2	PE 1417 TE	Intelligent Transportation System
3	PE 1418 SE	Finite Element Methods
4	PE 1419 TE	Analysis of Transportation Systems
5	PE 1420 TE	GIS and GPS Application to Transportation Engineering
6	PE 1421 TE	Rural Roads
7	PE 1422 TE	Economic Evaluation and Analysis of Transportation Projects
8	PE 1423 TE	Transportation Modelling and Simulation
9	PE 1424 TE	Airport Planning and Design
10	PE 1425 TE	Pavement Evaluation Maintenance and Management
11	PE 1426 TE	Railway Engineering
12	PE 1427 TE	Transportation Structures
13	PE 1428 TE	Statistical Techniques
14	PE 1429 TE	Behavioural Modelling
15	PE 1430 TE	Ground Improvement Techniques

List of Mandatory Courses

S. No.	Course Code	Course Title
1	MC5121ME	Research Methodology & IPR

List of Open Elective Courses

S. No.	Course Code	Course Title
1	OE9101CE**	Cost Management of Engineering Projects
2	OE9102CS	Business Analytics
3	OE9103EC	Embedded System Design
4	OE9104EE	Waste to Energy
5	OE9105ME	Industrial Safety

Note: ** Open Elective Subject is not offered to the students of Civil Engineering Department.

List of Audit Course-I

S. No.	Course Code	Course Title
1	AD 9001 HS	English for Research Paper Writing
2	AD 9002 CE	Disaster Management
3	AD 9003 HS	Sanskrit for Technical Knowledge
4	AD 9004 HS	Value Education

List of Audit Course-II

S. No.	Course Code	Course Title
1	AD 9005 HS	Constitution of India and Fundamental Rights
2	AD 9006 HS	Pedagogy Studies
3	AD 9007 HS	Stress Management by Yoga
4	AD 9008 HS	Personality Development through life Enlightenment Skills

List of Laboratory Courses

S. No.	Course Code	Course Title
1	PC 1451 TE	Traffic Design and Studio Lab
2	PC 1452 TE	Highway Materials and Pavement Engineering Lab
3	PC 1453 TE	Computational Lab