

## **Transportation and Highway Engineering**

### **Description**

Transportation engineering is the application of technology and scientific principles to the planning, functional design, operation and management of facilities various modes of transportation in order to provide for the efficient safe, rapid, comfortable, economical, convenient, and environmentally compatible movement of people and goods.

### **Head of Thematic area**

[PROF.MBECHE OYUKO O.](#)

### **List of Staff under Thematic area**

- [Prof Mbeche Oyuko O View Profile](#)
- [Prof Mwea Sixtus Kinyua View Profile](#)
- [Prof Gichaga Francis J View Profile](#)
- [Dr Nyambane Osano Simpson View Profile](#)
- [Mr Matheri George Paul K View Profile](#)
- [Mr Mboya Paul Osano View Profile](#)

### **Projects under thematic area, both past and ongoing with links to content**

- The use of plastic waste as a thin topping to road pavements;
- Performance of Rigid pavements;
- Characterization of Asphalt Mixtures

### **Degree courses and/or units with links to content**

- Bachelor of Science in Civil engineering
- Master of Science in Civil Engineering (Transportation Engineering)
- Doctor of Philosophy (in Civil Engineering)

Transportation engineering is a major component of the civil engineering degree programme at the University of Nairobi. Our undergraduate students are exposed to all the aspects of

transportation engineering. In particular the students are exposed to current design standards as applied in Kenya and internationally

The master's course enhances the areas covered in the undergraduate programme. Graduate students are exposed to advanced aspects of design, operation and management of facilities various modes of transportation

## **FIRST YEAR OF STUDY**

### **SEMESTER I**

- FCE 165 - Computer Science I 45

### **SEMESTER II**

- FCE 142 - Engineering Drawing 45
- FCE 166 - Computer Science II 45

## **SECOND YEAR OF STUDY**

### **SEMESTER I**

- FCE 265 - Computer Science III

### **SEMESTER II**

- FCE 266 - Computer Science IV 45

## **THIRD YEAR OF STUDY - SEMESTER I**

### **SEMESTER I**

- FCE 345 - Civil Engineering Materials II 45
- FCE 351 - Engineering Surveying II 45

### **SEMESTER II**

- FCE 342 - Engineering Drawing & Design II 45
- FCE 346 - Transportation Engineering I 45

## **FOURTH YEAR OF STUDY**

### **SEMESTER I**

- FCE 451 - Engineering Surveying III 45
- FCE 461 - Statistics 45

## **SEMESTER II**

- FCE 446 - Transportation Engineering II 45

## **FIFTH YEAR OF STUDY**

### **SEMESTER I**

- FCE 545 - Transportation Engineering IIIA 45

### **SEMESTER II (COMPULSORY UNITS)**

- FCE 590 - Civil Engineering Project 45

### **SEMESTER II (OPTIONAL UNITS) (a minimum of 4 to be taken)**

- FCE 546 - Transportation Engineering IIIB 45
- FCE 552 - Engineering Surveying IV 45

## **POSSIBLE CAREER OPPORTUNITIES**

- Civil Engineering Consulting Firms
- Ministry of Lands and Housing
- Ministry of Transport and Infrastructure
- Civil Engineering Contractors
- County Governments