



MACHAKOS UNIVERSITY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
SCHOOL OF ENGINEERING AND TECHNOLOGY

UNIT: ECU 500 – Engineering Practice and Ethics: 1st Semester 2021 – 2022

Pre-requisite:

ECU 400: Research Methodology, ECU 402: Project Management and ECU 403: Industrial Attachment II

Objective:

To prepare the student for the world of work as an engineer.

Expected Outcome

Students will be able to appreciate the need for ethics in their dealings with their clients and the society at large.

Course Description:

Engineering Ethics: Fundamental principles of engineering practice. Rules of practice. Professional obligations. Engineering Consultancy. The nature and sources of contract. The law of tort. Intellectual property laws. Contractual obligations. The Engineers Act. Engineers Professional Societies. The engineer as a consultant. The engineer as a contractor. Engineer in contractual disputes. The role of an engineer in society. The Occupational Safety and Health Act and conditions of work. ISO 9000. ISO 14001. ISO 18000. Industrial relations in Kenya. Trade unions, Collective bargaining, labour laws, arbitration and the industrial court. Kenya Business Units: sole proprietorship, partnership, limited liability company, corporation, parastatal and cooperatives.

Teaching Organization:

Lectures: 3 hours per week; Tutorials: 1 hour per week.

Assessment:

Ordinary Examination at end of Semester: 70 % Continuous Assessment: 30 % where 20 % shall be continuous assessment tests and 10 % shall be assignments.

Eng. Martin M. Nzomo PE

BSc(Hons)(Electrical Engineering)(NBI), MSc(Digital Systems)(Cranfield), MEd(VOTEC)(Illinois at U-C), MKIM, FIEK, PE.

SENIOR ADJUNCT LECTURER

9th May 2022