EEG 211 COURSE OUTLINE

1. INTRODUCTION

- Lumped Circuit Modelling

- Circuit Elements

- Current

- Voltage

- Power

- Energy

- Sources

- Device Laws:

- Ohm’s Law

- Kirchhoff’s Current Law

- Kirchhoff’s Voltage Law

- I-V Characteristics

2. SERIES AND PARALLEL CIRCUITS

3. NETWORK THEOREMS AND CIRCUIT ANALYSIS TECHNIQUES

- Nodal Analysis and Supernode

- Mesh Analysis and Supermesh

4. NETWORK THEOREMS AND CIRCUIT ANALYSIS TECHNIQUES

- Linearity

- Superposition

- Source Transformation

5. SOURCE TRANSFORMATION

- Thevenin Theorem

- Norton Theorem

- Maximum Power Transfer

6. ENERGY STORAGE ELEMENTS

- Capacitors

- RC Circuits

- Inductors

- RL Circuits