EEE132 (2010/2011)
CLASS SCHEDULE (PART 2)
21/02/11 – 8/04/11 (7 WEEKS)

Classes on Tuesdays (2pm - 4pm, DK6) and Fridays (8am - 9am, DK6).

WEEK 1	**21/02/11 – 25/02/11**
CLASS 1&2	22/02/11
LEAVE	25/02/11
WEEK 2	**28/02/11 – 04/03/11**
CLASS 3&4	01/03/11
CLASS 5	04/03/11
WEEK 3	**07/03/11 – 11/03/11**
CLASS 6&7	08/03/11
CLASS 8	11/03/11
WEEK 4	**14/03/11 – 18/03/11**
CLASS 9&10	15/03/11
CLASS 11	18/03/11

WEEK 5	**21/03/11 – 25/03/11**
CLASS 12&13	22/03/11
CLASS 14	25/03/11

WEEK 6	**28/03/11 – 01/04/11**
CLASS 15&16	29/03/11
TEST 2	01/04/11

WEEK 7	**04/04/11 – 08/04/11**
ASSIGNMENT PRESENTATION	05/04/11
FREE	08/04/11

WEEK 8	**9/04/11 – 17/04/11**
STUDY WEEK	

EXAMINATION	**18/04/11 – 06/05/11**

CLASS CONTENTS

HOURS 1 - 10
BJT
- currents in BJT
- dc biasing

HOURS 11 - 16
FET
- JFET
- JFET dc biasing
- DE MOSFET
- DE MOSFET dc biasing
- E MOSFET
- E MOSFET dc biasing

COURSE OUTCOMES

PART 1

CO1 – Understanding the semiconductor physics of the intrinsic, p and n materials

CO2 - Understanding the characteristics of the p-n junction, diode, special function diodes and all these diodes' applications in electronic circuits

PART 2

CO3 - Understanding the BJT

CO4 - Understanding the JFET

CO5 - Understanding the DE-MOSFET

CO6 - Understanding the E-MOSFET

TEACHING CONTENTS TO ENSURE COs ARE ACHIEVED (PART 2)

CO3 - Understanding the BJT

Introduction to BJTs and FETs – application and advantages of one over the other, differences between BJTs and FETs and between JFETs and MOSFETs

BJT types, symbols and operation

BJT currents and parameters

BJT configurations

BJT modes of operation

BJT input and output I-V characteristics

BJT dc biasing – load line and Q-point and biasing circuits, Stability of biasing circuit, BJT as a switch, introduction to the small-signal model (transconductance, input conductance, depletion and diffusion capacitance, Early effect)

CO4 - Understanding the JFET

Symbols, types, cross-section, operation, transfer and drain characteristics, important parameters

JFET current equation

JFET dc biasing : Fixed-biasing, Self-biasing, Mid-point biasing, Voltage division biasing, load line and Q-point, Q-point stability

CO5 - Understanding the DE-MOSFET

Symbols, cross-section, operation (enhancement, depletion), transfer and drain characteristics, current equation

DC biasing : zero bias

CO6 - Understanding the E-MOSFET

Symbols, cross-section, operation, transfer and drain characteristics, current equation, channel length modulation effect

DC biasing : voltage divider, drain feedback