



العدد :

التاريخ : / / ٢٠

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| Course number and name | EE 2200: Electronics I |
| Credits and contact hours | 3 credits and 4 hours |
| Course coordinator | |
| Textbook | Microelectronic Circuits w/CD , 6th edition, Sedra/Smith, 2010 Schematic Capture w/ Cadence Pspice w/CD, 2nd edition, M Herniter, 2003 |
| Course Information | a. Prerequisites: EE 1100 Circuits I, EE 1110 Circuits II, and EE 1200 Electronic Physics Required |
| Topics to be covered | <ul style="list-style-type: none">– Basic semiconductor concepts, current flow in semiconductors, physical structure and operation of <i>pn</i> junction– Terminal characteristics of ideal and junction diodes, diode circuits, diode modeling of forward characteristics, Zener diode, diode application- rectifiers, clamping, clipping, voltage regulation, Schottky-Barrier diode, photodiodes, light emitting diode (LED)– Physical structure and operation of BJT, current-voltage characteristics of <i>npn</i> BJT and <i>pnp</i> BJT, BJT circuit DC analysis, small-signal operation and models (CE,CB,CC), discrete BJT amplifier– Analog concept, transistor amplifier, single-stage and multi-stage amplifiers |