Southern Illinois University at Carbondale
Spring 2009
Syllabus: ECE 345 Electronics

Instructor:
Shaikh S. Ahmed, PhD
Assistant Professor
Department of Electrical and Computer Engineering
Office: Engineering E-222
Telephone: (618) 453-7630
Email: ahmed@engr.siu.edu

Office Hours: MW 2:00–3:30 PM, and by appointment.

Lecture: MWF 11:00–11:50 AM, ENGR. A-220
Labs: Section 001 R 8:00–10:50 AM, ENGR. E-237
Section 002 R 11:00 AM–1:50 PM, ENGR. E-237


Course Topics:
Introduction microelectronics, electronics systems
Diodes \( p-n \) junctions, diode characteristics
Ideal diodes, diode model, diode circuits
BJTs BJT structures, BJT characteristics
BJT biasing, and BJT amplifiers
MOSFETs MOSFET structures, and characteristics,
MOSFET biasing, amplifiers, and CMOS digital logic circuits
OPamps Ideal operational amplifiers (op-amps), op-amp application circuits, non-ideal characteristics of the op-amp

Evaluation:
Quizzes (best 5/7) 25%
Homework 15%
Midterm 20%
Final 25%
Lab 15%

Note:
1. Students are responsible for all announcements made in class.
2. Emphasis will be given on the conceptual understanding of the subject-matter rather than on memorization of equations.