

TO: The Faculty of the College of Engineering

FROM: School of Electrical and Computer Engineering of the College of Engineering

RE: ECE 60600 Changes in Title, Requisite, and Description

The faculty of the School of Electrical and Computer Engineering has approved the following changes in ECE 60600. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: **ECE60600 – Solid State Devices**
Sem. 1 and 2. Class 3, cr. 3.
Prerequisite: Masters Student Standing or Higher. Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

A relatively-broad, moderate-depth coverage of semiconductor devices and related topics. The first portion of the course presents and examines semiconductor fundamentals required in the operational analysis of solid state devices. A detailed examination of the PN junction diode and PN junction devices follows. The final portion of the course treats heterojunction surface devices including the Schottky diode, the MOS capacitor and the MOSFET.

To: **ECE 60600 – Solid State Devices I**
Sem. 1 and 2. Class 3, cr. 3.
Prerequisite: Graduate Standing.

A relatively-broad moderate-depth coverage of semiconductor devices and related topics. The first portion of the course presents and examines semiconductor fundamentals required in the operational analysis of microelectronic devices. Next, PN junction and Metal-Semiconductor diode theory is reviewed, followed by analyses of the Bipolar Junction Transistor (BJT) and Heterojunction Bipolar Transistor (HBT). The final portion of the course treats the Metal-Oxide-Semiconductor Capacitor (MOS-C) and Field Effect Transistor (MOSFET).

Reason: The course title, description, and requisites have been changed to reflect the updated content of the course.

A handwritten signature in black ink, reading "Michael R. Melloch". The signature is written in a cursive style with a horizontal line underneath the name.

Michael R. Melloch, Associate Head
School of Electrical and Computer Engineering