Course Information — EE 531
Semiconductor Devices and Device Simulation
Physics and Modeling of Nanoscale VLSI Devices
Spring 2017

Web Page: http://dunham.ee.washington.edu/ee531
Professor: Scott Dunham
EE 218
206-543-2189 dunham@ee.washington.edu (use GoPost for non-confidential questions)

Office hours: M 3:00-4:00pm, F 9:00am-10:00am (tentative)

TA: Yu Jin

Text: “Fundamentals of Modern VLSI Devices” by Taur and Ning

Reference Texts
“Advanced Semiconductor Fundamentals (Modular Series Vol. VI)” by Pierret
“Fundamentals of Carrier Transport” by Lundstrom
“Semiconductor Physics and Devices” by Neamen
“Device Electronics for Integrated Circuits” by Muller and Kamins
“Modern Semiconductor Device Physics,” edited by Sze
“Physics of Semiconductor Devices” by Sze
“Advanced Theory of Semiconductor Devices” by Hess
“Si Processing for the VLSI Era: Vol. 3 — The Submicron MOSFET” by Wolf
“Advanced MOS Devices” by Schroder
“Operation and Modeling of the MOS Transistor” by Tsividis

Simulation Software: Sentaurus (Synopsys)
Available in EE Linux Lab (need EE account first)

Grading Policy:
Homework: 20%
Exam 1: 30%
Exam 2: 30%
Project: 20%

Prerequisite: Semiconductor Devices (EE 482) or equivalent