

## Course Information — EE 531

### Semiconductor Devices and Device Simulation Physics and Modeling of Nanoscale VLSI Devices

Winter 2007

- Web Page: <http://dunham.ee.washington.edu/ee531>
- Professor: Scott Dunham  
EE 218  
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dunham@ee.washington.edu (use EPost for non-confidential questions)
- Office hours: M 2:00pm-3:00pm  
F 2:30pm-3:30pm
- Grader: TBA
- Text: “Fundamentals of Carrier Transport” by Lundstrom  
“Fundamentals of Modern VLSI Devices” by Taur and Ning
- Reference Texts (on reserve in ENGR library) “Advanced Semiconductor Fundamentals (Modular Series Vol. VI)” by Pierret  
“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: Medici (Synopsys)  
Available in EE Linux Lab (need EE account first)
- Grading Policy: Homework: 20%  
Exam 1: 25%  
Exam 2: 35%  
Project: 20%
- Prerequisite: Semiconductor Devices (EE 482) or equivalent