

Physics 156: Applications of Solid State Physics

Instructor: Sue Carter

Office: 349 Nat Sci II

Office Hours: Wednesdays, 12:30 - 2:00 pm or by appointment

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Homework (30%), Exams (30%), Presentation (30%), Participation (10%)

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|------|---|
| 3/31 | Introduction to Modern Physics and Crystal Structure |
| 4/2 | Semiconductors band diagrams, doping, drift and diffusion |
| 4/7 | Charge injection, generation, and recombination, SCLC |
| 4/9 | MOS and MOSFETs |
| 4/14 | PN and Schottky junctions, HW #1 due |
| 4/16 | No Class |
| 4/21 | Memory |
| 4/23 | Exam/Homework Review, HW #2 due |
| 4/28 | Exam #1 |
| 4/30 | Introduction to Optoelectronics |
| 5/5 | Solid State Lasers and LEDs |
| 5/7 | Solid State Lighting and Displays |
| 5/12 | Photodetectors, HW #3 due |
| 5/14 | Solar Cells |
| 5/19 | Exam/Homework Review, HW #4 due |
| 5/21 | Exam #2 |
| 5/26 | Magnetic Materials and Devices |
| 5/28 | Mechanical and Superconducting Devices |
| 6/2 | Student Final Presentations |
| 6/4 | Student Final Presentations |