

Tentative Meetings July 13-24, 2009**Instructor:**

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Texts (Optional) :

- ✓ The Third Element: A Brief History of Electronics, by Alfred Corbin
- ✓ Crystal Fire: The Invention of the Transistor and the Birth of the Information Age by Michael Riordan, Lillian Hoddeson
- ✓ Microelectronics: Circuit Analysis and Design by Donald A. Neamen
- ✓ Notes (mainly from the book by Neamen) and references to internet sites.
(The books above are all in reserve at the NMT library).

Class Schedule

MTWRF 9:00-12:00 A.M. Workman 116

Office Hours

By appointment

Course Overview:

This is a non-calculus based course covering the history of semiconductors; provides an overview of the development of diodes and transistors with an extension to high density integrated circuits; introduces the fundamental physics of semiconductor devices; and solar energy conversion technologies.

Grading:

1. Graded assigned problems.
2. Maintaining a laboratory notebook.
3. A final project.

Assessment:

Self-reporting of the amount of learning will be used for assessment.

Getting Help: Students are strongly encouraged to work in pairs; and together in a mutually supportive classroom / laboratory environment as well as and help each other, in person or via the Internet and email. The instructor will be available for help via email outside of class hours.