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## Syllabus

**Instructor:** Bill Rison ([rison@nmt.edu](mailto:rison@nmt.edu)), 575 835-5486

**URL:** <http://www.ee.nmt.edu/~rison/ee308>

### Texts:

- Class Notes
- **The HCS12/9S12: An Introduction to Software and Interfacing, 2<sup>nd</sup> Edition** by Han-Way Huang
- Freescale Databooks on the MC9S12 (online)

**Class Schedule:** MWF 13:00-13:50, Cramer 101

**Office Hours:** MWF 10:00-12:00, Workman 211

**Course Overview:** This course develops a basic understanding of the use of microcontrollers, using the Freescale MC9S12 as an example. The topics we will address in this class include assembly and C language programming, and microcontroller peripherals, including the MC9S12 timer, A/D converter, pulse width modulator, and serial communications peripherals. The student will use his/her knowledge to program a microcontroller for a typical control project, which requires the use of several peripheral subsystems. The class and lab will be closely coupled, with material presented in the class reinforced by the laboratory experience.

### Grading:

- 20%: Homework.
- 10%: Quizzes (Group quiz given in class every Friday)
- 50%: Three midterms exams
- 20%: Final exam

### Academic honesty

All students are expected to demonstrate personal integrity. Interaction among students in completing homework and laboratory assignments is strongly encouraged; however each student *must demonstrate his/her individual effort*. Exchange of information during in-class examinations as well as copying homework solutions from each other is strictly prohibited. Students exhibiting any form of academic dishonesty will be subject to penalties in accordance with NMT policies.