

Fall 2015

## **ENEE 3587**

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*University of New Orleans*

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# ENEE 3587

## Microp Interfacing

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## Syllabus

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Dr. A. Alsamman

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## Syllabus – Welcome to Microp

- INSTRUCTOR: Dr. A. Alsamman
  - ❑ Office: EN 842, Phone: 280-7161
  - ❑ Email: [aalsamma@uno.edu](mailto:aalsamma@uno.edu)
  - ❑ Office Hours: M 3:30pm-5pm, T/Th 3:15pm-5pm
- COURSE INFO
  - ❑ ENEE 3587, Microprocessor Interfacing, Credit: 3 Hr.
  - ❑ Prerequisites: **Grade of C or better** in ENEE 3582, ENEE 3512.
- TEXT
  - ❑ The HCS12/9S12: An Introduction Software and Hardware Interfacing, 2nd ed., H-W Huang, Delmar Thompson Learning, 2006
  - ❑ Class Notes will be available on Moodle.

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Dr. A. Alsamman

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## ■ GENERAL GOALS

- Knowledge of Motorola HCS12 microprocessor interfacing.
- Ability to control microcontroller hardware and interfaces through programming.

## ■ OUTCOMES

- Ability to apply knowledge of mathematics, science and engineering
  - Ability to design and conduct experiments, as well as to analyze and interpret data
  - Ability to design a system, component, or process to meet desired needs
  - Ability to function on multi-disciplinary teams
  - Ability to identify, formulate, and solve engineering problems
  - Ability to communicate effectively
  - Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
  - Knowledge of mathematics, basic sciences, computer science, engineering sciences and electrical engineering necessary to analyze and design complex electrical and electronic devices, software, and systems containing hardware and software components
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## ■ TOPICS

	Week
□ Review of Number System	1
□ Intro to Embedded Microp & HCS12 Arch	2
□ HCS12 Assembly Overview	3
□ C programming	3
□ Development Tools	4
□ IO Registers & Ports	5
□ Parallel IO & Peripherals	6
□ Interrupts	7,8
□ ECT	9,10
□ SCI	10,11
□ SPI	12
□ ATD	13
□ Additional: USB, CAN, I2C	14

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## ■ GRADING POLICY

- ❑ Homework 10%
- ❑ Projects 45%
- ❑ 2 Tests 30%
- ❑ Final 15%

## ■ ASSIGNMENTS

- ❑ Homework will be graded on effort.
- ❑ All homework will be assigned throughout the week and posted on moodle.
- ❑ Projects will require the use of the development hardware and software.

## ■ TESTING

- ❑ 2 tests and 1 final test will be scheduled.
- ❑ Dates will be confirmed in advance.
- ❑ Tests will take a class duration.
- ❑ Tests will be comprehensive but will focus on more recent material

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## ■ IMPORTANT DATES

See <http://www.uno.edu/registrar/bulletin/important-dates.aspx#Fall>

Labor Day Holiday	M 9/9
Test 1	W 9/30
Test 2	W 11/18
Mid-semester Break	10/15-16
Thanksgiving Holidays	11/26-27
Last day of classes	F 12/4
Final Exam	W 12/9, 10am – 12pm

## ■ MAKEUP POLICY

No makeup will be given for missed homework or examinations without valid excuses. The instructor will make decisions regarding the makeup in the case of valid and/or written excuse.

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## ■ Academic Integrity

Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Refer to the Student Code of Conduct for further information. The Code is available online at <http://www.studentaffairs.uno.edu>.

## ■ Students with Disability

It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to <http://www.ods.uno.edu>.

## ■ Changes in Course Requirements

Since all classes do not progress at the same rate, the instructor may wish to modify the above mentioned requirements or their timing as circumstances dictate. For example, the instructor may wish to change test dates and material, the number and frequency of examinations, or the number and sequence of assignments. If such modification is needed, the student will be given adequate notification.