



IN-VEHICLE NETWORKS

COURSE SYLLABUS Spring 2008

BAE 5030 (3 hrs)

INSTRUCTOR:

Dr. Marvin Stone
214 Ag Hall
Phone 612-6403
Office Hours: Please contact to arrange.

PREREQUISITES:

BAE5413, MAE 4733 or equivalent experience

COURSE OBJECTIVES:

The objective of this course is to provide students with a working knowledge of in-vehicle network systems and exposure to aspects of design, development, application, and performance issues associated with those systems.

SUBJECT OUTLINE:

1. Introduction to OSI and network descriptive structures and network functionality.
2. Network technologies
 - a. LIN
 - b. SAE J1850
 - c. SAE J1587/1708
 - d. CAN
 - e. SAE J1939/ISO 11783/NMEA2000
 - f. Flexray
 - g. byteFlight
 - h. MOST
 - i. Ethernet
 - j. Future network technologies
3. Software development of embedded distributed systems

MEETING TIME and PLACE:

03:30-04:45PM T,TH in 106 Biosystems and Ag Engineering Laboratory

EXAMINATIONS and ASSIGNMENTS:

Students will be given projects in which independent work is expected. Students will be assigned material to present in class and these presentations will be scheduled during the first two weeks of class. Students will be expected to compile a notebook of all handout material and all presentation material from the class. The notebook will be graded at the end of class. Closed book/notes quizzes over homework and lectures will be given unscheduled. Assignments are due at the beginning of the period, one week after the assignment was made. No more than half credit will be given for assignments that are

late. No credit will be given for assignments that are over one class period late. Students with appropriate excuses and prior arrangements with the instructor may reschedule examinations.

GRADING:

In-class presentation 25%

Class notebook 25%

Quizzes 25%

Final exam 25%

The final grade will be based on the total percentage of the above determined from the following table.

%-Range	Grade
100-90	A
89-80	B
79-70	C
69-60	D
59-0	F

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