

# EECE 6354 Advanced Real-Time Systems

Fall 2017

**Place:** ISIS, 1025 16<sup>th</sup> Ave S, 4<sup>th</sup> Floor, Gold Room.

**Time:** MW 8:45-10:00

There are two main parts of this course. First, we will learn about  $\mu\text{C}/\text{OS-III}$ , a real-time kernel, as well as concurrent programming on an embedded platform. Familiarity with the C programming language is assumed. In the second part, we will review relevant papers from the literature in a seminar style.

## **$\mu\text{C}/\text{OS-III}$ :**

The discussion will be based on the book:

*$\mu\text{C}/\text{OS-III}$ : The Real-Time Kernel* by Jean J. Labrosse

I will loan you an evaluation board to run the kernel on. You do need the board because the kernel and hence, the class project runs on it. You can order the book at Amazon and other places.

The midterm will be an in-class programming assignment.

## **Seminar:**

I will create a list of important papers. Each paper will be assigned to a student. For the second half of the semester in every class, one paper from this list will be covered. The assigned student will prepare a 45-min presentation and lead the discussion afterwards. Depending on the class size, each student is expected to get 2-3 papers. Also, one additional paper will be assigned to each student. You are expected to write a review of the paper and hand it in at the beginning of the class when the given paper is covered. Everybody is required to read every paper. We will have a few quizzes at the beginning of some of the classes to make sure everybody reads every paper.

## **Project:**

The project will be a two-phase programming assignment. It will be assigned in mid to late September. The first phase will be due in November before the Thanksgiving week. The last phase will be due by the end of the semester.

## **Grading:**

|                           |     |
|---------------------------|-----|
| Midterm:                  | 10% |
| Project:                  | 45% |
| Presentations:            | 25% |
| Quizzes:                  | 10% |
| Paper review:             | 5%  |
| Discussion participation: | 5%  |

## **Office hours:**

By appointment only.

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