

New Course Offering: EEE6994-01 – Grad Special Topics - SoC Design Studio

CRN 4736

Description: This course focuses on implementation of system on a chip (SoC) devices using C/C++. Students will use C/C++ skills to access features on the SoC, and interface with the hardware peripherals, culminating in an end of the term research project. A short review of C will be given.

Format: 1-2 lectures on topic then 2-3 class periods to get the assignment working. Students are expected to work on assignments outside of class, and then come to class with questions about the hardware. This is a studio class, meaning that your attendance will be required to complete the assignments. It will be structured like a lab class, but at a graduate level.

Topics Covered: IDE installation, system boot up, bootloaders, register configurations, A/D, USART/UART, CAN, TCP/IP, interrupts, RTOS, DMA, intelligent system design,

Additional Costs: \$100-\$150. Students will be responsible for purchasing and maintaining their own hardware. Documentation for the hardware is available online and thus no book is required.

Prerequisites: Intermediate skills in C/C++ , circuits lab or equivalent, microprocessors, embedded systems. Note: The later part of the course will require extensive work in C/C++

Please come see Dr. Richard Chase (rchase@ltu.edu) to be added to the class.