



DEVICE SOFTWARE ENGINEERING SPECIALIZED STUDIES PROGRAM • ONLINE

Programming embedded devices in the electronics and computer engineering industry requires a different skill set than computer software programming. The coding must be precise and succinct to meet memory constraints and specialized needs of the product that the embedded system resides in, whether it be medical, automotive or consumer oriented.

This program addresses best practices in managing the embedded software engineering process, including design engineering, and co-development of hardware and software. The purpose is to provide a core competency in software engineering practices in embedded systems software development, with focus on device drivers.

WHO SHOULD ENROLL

This program is designed for individuals who want to write device drivers for embedded systems. It is also valuable to those who evaluate software development requirements, determine criteria for embedded development applications, establish programming methodologies to address embedded applications, and support hardware and embedded software development activities.

PROGRAM BENEFITS

- Develop concise and effective code for embedded systems applications
- Improve the hardware and software co-development process
- Organize your company's device software engineering strategies
- Further your career as an embedded systems engineer

SPECIALIZED STUDIES AWARD REQUIREMENTS

Candidates must possess a fundamental understanding of C programming for embedded systems; or possess equivalent experience or education. A Specialized Studies certificate is awarded upon completion of 3 required courses (9 credit units total) with a grade of "C" or better in each course. Students not pursuing a specialized studies award are welcome to take as many individual courses as they wish.

TO ENROLL

Visit ce.uci.edu/dse for full course descriptions, instructor biographies, and to enroll.

PROGRAM FEES

The total cost of the program varies depending on the courses chosen. Actual fees may differ from the estimate below. Fees are subject to change without prior notice.

Course Fees (1.5 prerequisite and 9 required units)	\$2,685
Candidacy Fee	\$35
Textbooks and Materials	\$570
Total Estimated Cost	\$3,290

IEEE Members receive

15% off

of one course per quarter.



FOR MORE INFORMATION:

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COURSE #	PREREQUISITE COURSE	UNITS
EECS 805	C Programming for Embedded Systems	1.5 (CEU)
COURSE #	REQUIRED COURSES (Minimum 9 units)	UNITS
EECS X497.19	Writing Portable Device Drivers**	3
EECS X497.31	Designing Embedded Software Using Real-Time Operating Systems**	3
EECS X497.10	Fundamentals of Embedded Linux	3
EECS X497.12	Linux Driver Primer	3
EECS X495.1	Fundamentals of Real-Time Embedded DSP**	3
EECS X497.39	Embedded Systems Design Using ARM Technology	3

*Prerequisite: EECS 805 C Programming for Embedded Systems or equivalent experience.

#Course requires hardware or software, please refer to online listing for details.