



## **DIGITAL SIGNAL PROCESSING ENGINEERING SPECIALIZED STUDIES PROGRAM • ONLINE**

Digital Signal Processing (DSP), has emerged as an important technology for modern electronic systems. It is a form of embedded design that is one of the newest and hottest fields, and is considered to be the workhorse of choice for many computational-intensive applications. Modern applications include biomedical, communications, imaging, speech, video signal, and multimedia signal processing.

### **WHO SHOULD ENROLL**

This program is designed for individuals involved in the evaluation, design or development of systems employing digital signal processing, or as an introduction to DSP technology.

### **PROGRAM BENEFITS**

- Understand the essential mathematics & algorithms in DSP
- Gain hands-on experience in designing and implementing DSP algorithms
- Learn about DSP processors and architectures
- Discover how to program DSP code
- Create practical applications

## SPECIALIZED STUDIES AWARD REQUIREMENTS

Candidates should have a bachelor's degree in computer science or electrical engineering or equivalent knowledge acquired through training and experience in hardware design and development. 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/dsp](http://ce.uci.edu/dsp) 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.

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|--|----------------|
| Course Fees<br>(4.5 prerequisite and 9 required units) | \$3,930        |
| Candidacy Fee  | \$35           |
| Textbooks and Materials                                | \$480          |
| <b>Total Estimated Cost</b>                            | <b>\$4,445</b> |

**IEEE Members receive**

**15% off**  
of one course per quarter.



## FOR MORE INFORMATION:

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### DSP SYSTEMS ENGINEERING SPECIALIZED STUDIES PROGRAM

| COURSE#      | PREREQUISITE COURSES                                      | UNITS     |
|--------------|---|-----------|
| EECS 805     | C Programming for Embedded Systems                        | 1.5 (CEU) |
| EECS X494.19 | MATLAB for Engineers <sup>#</sup>                         | 3         |
| COURSE#      | REQUIRED COURSES (Minimum 9 units)                        | UNITS     |
| EECS X495    | DSP Fundamentals, Modeling and Analysis <sup>**</sup>     | 3         |
| EECS X495.1  | Fundamentals of Real-Time Embedded DSP <sup>**</sup>      | 3         |
| EECS X495.2  | DSP for Communications Systems <sup>#</sup>               | 3         |
| EECS X498.61 | Real-Time Embedded Digital Signal Processing <sup>#</sup> | 3         |
| EECS X497.6  | Motor Control Algorithms and Applications <sup>#</sup>    | 4         |

<sup>#</sup>Course requires hardware or software, please refer to online listing for details.

<sup>\*</sup>Prerequisite: EECS 805, C Programming for Embedded Systems, or equivalent experience.

<sup>\*\*</sup>Prerequisite: EECS X494.19, MATLAB for Engineers, or equivalent experience.