On-Site Training

UCLA Extension also offers customized technology and engineering training that can be offered on-site at your workplace. These fast, flexible, specialized programs can help you achieve your goals, stay up to date on current trends, and learn about cutting-edge technology. Benefits of having UCLA Extension training on-site include:

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• Each attendee receives a record of participation and continuing education units from UCLA Extension

Courses are offered on a variety of technical subjects, including aerospace and mechanical engineering, biomedical engineering, communications and sensors engineering, electronics, leadership and project management, and more.

Visit uclaextension.edu/shortcourses19.
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UCLA Extension Short Courses


These things are what makes working in a technical field so exciting and also why continuing education is so important. UCLA Extension short courses give you the tools you need to upgrade your career or take off in an exciting new direction in just 2-5 days. You’ll get intensive training in a variety of cutting-edge technical fields, giving you technical and practical knowledge you can apply immediately.

Our world-class instructors are selected from the top ranks of industry and academia, so you get relevant, real-world education from experts in the field. For more than 50 years, UCLA Extension has presented technical and management short courses for engineers, IT professionals, and technical managers seeking to keep abreast of new and rapidly changing technologies.

Enrollment Discounts

Save on enrollment costs when you enroll at least one month prior to the start of a course. UCLA Extension short courses also offer a special Team Advantage discount. For every three members you enroll, you can add a fourth enrollment for free.

Multirate Signal Processing in Transmitter and Receiver Designs

This course presents the structure, unique attributes and capabilities, and implementation considerations of standard multirate filter structures including polyphase, dyadic half-band, and Cascade Integrator-Comb (CIC). The course also reviews the functional tasks of modulators and demodulators, and identifies where and how multirate signal processing can be inserted in the signal flow paths to improve performance, enhance capabilities, and reduce cost of system implementation.

Coordinator & Lecturer: Fredric Harris, PhD, Professor of Electrical and Computer Engineering, University of California, San Diego

Dates: October 14 & 15, 2019
Reg#: 370411
Course No.: EC ENGR 860.50
Units: 1.2 CEUs
Fee: $2,295

Multitarget/Multisensor Data Fusion Techniques

This revised two-day course introduces the student to sensor and data fusion methods that improve the probability of correct target detection, classification, identification, and state estimation. These techniques combine information from colocated or dispersed sensors that utilize either similar or different technologies to generate target signatures or imagery. The course covers the effects of the atmosphere and countermeasures on millimeter-wave and infrared sensors to illustrate how the use of different phenomenology-based sensors enhances the effectiveness of a data fusion system.

Coordinator & Lecturer: Lawrence Klein, PhD, consultant specializing in multiple sensor concepts used for military applications

Dates: October 21 & 22, 2019
Reg#: 370459
Course No.: EC ENGR 810.80
Units: 1.2 CEUs
Fee: $2,295

Fundamentals of Lithium-Ion Battery Technology Applications and Advances

This course provides a foundation for understanding the general principles and fundamentals of lithium-ion (Li-Ion) rechargeable battery engineering. The effects of Li-Ion cell chemical, electrical, thermal, and mechanical design features on performance characteristics will be discussed in terms of meeting application unique requirements for battery design. Methods for battery cell requirements engineering, trade study analyses, architecture options, and test protocols will be discussed. A comprehensive review of Li-Ion battery safety in will be provided.

Coordinator & Lecturer: Thomas Barrera, PhD, President, Lithium-Ion Battery (LIB)X Consulting

Dates: November 12 & 13, 2019
Reg#: 370052
Course No.: EC ENGR 801.02
Units: 1.2 CEUs
Fee: $2,295

Transitioning from Technical to Managerial Responsibilities

One set of skills centers on the Leadership Skills or “soft people skills” necessary to accomplish change and get results through others. These include understanding and applying the theories of effective leadership behaviors. In-class self-assessments provide you with insights on how to sharpen your people skills by increasing your awareness and abilities in motivating others, using effective management styles, and building team relationships with your subordinates, peers, and supervisor.

Coordinator & Lecturer: Chris Christensen, MS, MBA, President, Christensen Associates, Inc., Playa del Rey, California

Dates: November 19 & 20, 2019
Reg#: 370545
Course No.: MGMT 815.01
Units: 1.2 CEUs
Fee: $2,295

Predictive Business Analytics

Learn analytical tools and techniques for anticipating and exploiting the changing competitive environment by mining data to determine the influences on business, society, politics, the economy, the environment, and technology. Identify immediate actions you should take to exploit opportunities and avoid catastrophes. Your action plan will propel your business forward and drive the application of data science in your industry.

Coordinators & Lecturers: Chris Christensen, MS, MBA, President, Christensen Associates, Inc., Playa del Rey, California
Carol Jacoby, PhD, specializes in analytical techniques for data science, system effectiveness prediction, systems engineering and decision analysis

Dates: December 3-4, 2019
Reg#: 370073
Course No.: MGMT 815.15
Units: 1.8 CEUs
Fee: $3,995

Fee
Units
Course No.
Reg#
Dates
Unit
Fee

**UCLA Extension Short Courses**

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**Coordinator & Lecturer:** Fredric Harris, PhD, Professor of Electrical and Computer Engineering, University of California, San Diego

**Dates:** October 21 & 22, 2019
**Reg#:** 370409
**Units:** 1.2 CEUs
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**Dates:** December 3-5, 2019
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**Course No.:** MGMT 815.15
**Units:** 1.8 CEUs
**Fee:** $3,995

**Multitarget/Multisensor Data Fusion Techniques**

This revised two-day course introduces the student to sensor and data fusion methods that improve the probability of correct target detection, classification, identification, and state estimation. These techniques combine information from colocated or dispersed sensors that utilize either similar or different technologies to generate target signatures or imagery. The course covers the effects of the atmosphere and countermeasures on millimeter-wave and infrared sensors to illustrate how the use of different phenomenology-based sensors enhances the effectiveness of a data fusion system.

**Coordinator & Lecturer:** Lawrence Klein, PhD, consultant specializing in multiple sensor concepts used for military applications

**Dates:** October 21 & 22, 2019
**Reg#:** 370409
**Course No.:** EC ENGR 810.80
**Units:** 1.2 CEUs
**Fee:** $2,295

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**Coordinator & Lecturer:**
- **Thoms Barrera, PhD, President, Lithium-Ion Battery (LIB) Consulting.**
- **Chris Christensen, MS, MBA, President, Christensen Associates, Inc., Playa del Rey, California**

**Dates:** November 19 & 20, 2019
**Reg#:** 370545
**Course No.:** EC ENGR 801.02
**Units:** 1.2 CEUs
**Fee:** $3,995

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- **Thoms Barrera, PhD, President, Lithium-Ion Battery (LIB) Consulting.**
- **Chris Christensen, MS, MBA, President, Christensen Associates, Inc., Playa del Rey, California**

**Dates:** November 12 & 13, 2019
**Reg#:** 370072
**Course No.:** EC ENGR 801.02
**Units:** 1.2 CEUs
**Fee:** $3,995
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Lawrence Klein, PhD, consultant specializing in multiple sensor concepts used for military applications

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Reg#: 370409
Fee: $2,995

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Coordinator & Lecturer:
Lawrence Klein, PhD, consultant specializing in multiple sensor concepts used for military applications

Multirate Signal Processing in Transmitter and Receiver Designs

Lawrence Klein, PhD, coordinator

Dates: October 23 & 24, 2019
Reg#: 370410
Fee: $2,295

This course presents the structure, unique attributes and capabilities, and implementation considerations of standard multirate filter structures including polyphase, dyadic half-band, and Cascade Integrator-Comb (CIC). The course also reviews the functional tasks of modulators and demodulators, and identifies where and how multirate signal processing can be inserted in the signal flow paths to improve performance, enhance capabilities, and reduce cost of system implementation.

Coordinator & Lecturer:
Lawrence Klein, PhD, Professor of Electrical and Computer Engineering, University of California, San Diego

Transition from Technical to Managerial Responsibilities

Transitioning from Technical to Managerial Responsibilities

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Coordinator & Lecturer:
Thomas Barrera, PhD, President, Lithium-Ion Battery (LIB-X) Consulting

Fundamentals of Lithium-Ion Battery Technology Applications and Advances

Fundamentals of Lithium-Ion Battery Technology Applications and Advances

Dates: November 5-6, 2019
Reg#: 370545
Fee: $2,295

This course provides a foundation for understanding the general principles and fundamentals of lithium-ion (Li-Ion) rechargeable battery engineering. The effects of Li-Ion cell chemical, electrical, thermal, and mechanical design features on performance characteristics will be discussed in terms of meeting application unique requirements for battery design. Methods for battery cell requirements engineering, trade study analyses, architecture options, and test protocols will be discussed. A comprehensive review of Li-Ion battery safety will be provided.

Coordinator & Lecturer:
Lawrence Klein, PhD, Professor of Electrical and Computer Engineering, University of California, San Diego

Predictive Business Analytics

Predictive Business Analytics

Dates: December 3-5, 2019
Reg#: 370073
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 fee discount. Discounts cannot be combined. Some limitations apply.
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Fall 2019
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October 21 & 22
Multitarget/Multisensor Data Fusion Techniques

October 23 & 24
Multirate Signal Processing in Transmitter and Receiver Designs

November 12 & 13
Fundamentals of Lithium-Ion Battery Technology Applications and Advances

November 19 & 20
Transitioning from Technical to Managerial Responsibilities

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Stay on Course at Your Workplace