Get started with a free information session
Discover how UC Berkeley Extension can help you achieve your goals. Learn more about programs. Get to know instructors. Meet your fellow students. Ask questions. Visit extension.berkeley.edu/infosessions.
Welcome from the Dean

Build a Better Future

UC Berkeley Extension takes heart in seeing the dedication that our students bring to each course of study, whether it’s a single class for personal enrichment or a full professional certificate or specialized program of study. Look for some of these student experiences throughout this catalog—stories of career changers, enthusiasts, and inspiring professionals who decided to take charge of their futures and improve their lives. Every day, you can meet successful people just like these students in any one of the hundreds of courses we offer throughout the Bay Area and online.

UC Berkeley Extension takes pride in offering quality courses taught by experienced professionals. Part of our commitment to student success is reflected in the innovative courses we offer each term. This term, our academic staff has been hard at work developing courses in cultural preservation, Lean manufacturing, and green chemistry, to name just a few. Read through the a listing of new courses on p. 7, and look for New This Term tags throughout the catalog to find our latest offerings.

Although our breadth of academic options is important to Extension’s mission, we also want to make it convenient for you to take courses; we know how challenging it can be to fit self-improvement into family and job responsibilities. Our online courses continue to grow in popularity as students come to realize the benefits of our focused online curricula. We also offer multiple classroom locations throughout the Bay Area—including our new facility in Belmont, California. Our new Belmont Center is located conveniently off U.S. 101 and features new classrooms and free parking. We hope you’ll join us there this term if you find the course that is right for you.

Whether you visit us in Belmont, in San Francisco, in Berkeley, or online, you can be certain to find a community of like-minded students who share your dedication to personal and professional development. If you’ve already taken classes with us, welcome back to a new term and new academic challenges. If you’re new to Extension, congratulations on taking this important step to your future success, and thank you for choosing us.

Diana Wu, Ed.D.
Dean, UC Berkeley Extension
Buddy Burke, who holds a bachelor’s degree in management from Valdosta State University in Georgia, is a retired Air Force and commercial airline pilot. With interests in public service and the environment, Burke is enjoying a second career as a business consultant—and as a lifelong learner. His reason for enrolling at UC Berkeley Extension is straightforward: “I just simply wanted to learn more,” he says.

UC Berkeley Extension allows Burke to pursue his passions with the right knowledge and mentoring. In the course Writing as a Practice with instructor Jane Anne Staw, her ability to know the individual needs of each student still impresses him. “Jane Anne Staw is wonderful,” Burke says. “She made it seem like each of us was receiving her undivided attention.”

Burke describes his time in class, in courses such as Using Your Voice as a Sales Tool, as “pure enjoyment.” In fact, he still meets regularly with former classmates from his Sustainable Energy: Comparing the Alternatives course to discuss current issues in the field.

“UC Berkeley Extension met my expectations in unexpected ways,” he says.
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The University of California, Berkeley, is accredited by the Western Association of
Schools and Colleges (WASC). UC Berkeley Extension—like all other UC Berkeley
schools, colleges, and departments—is accredited by WASC through the University.
Professional Certificates and Specialized Programs of Study

**Art and Design**
- Certificate Program in Interior Design and Interior Architecture
- Certificate Program in Landscape Architecture
- Post-Baccalaureate Certificate in Visual Arts
- NEW! Professional Sequence in Cultural Landscape Preservation and Management
- Professional Sequence in Graphic Design
- NEW! Specialized Program in Digital Photography
- NEW! Specialized Program in Drawing
- NEW! Specialized Program in Painting

**Behavioral and Health Sciences**
- Certificate Program in Alcohol and Drug Abuse Studies
- Professional Program in Aging and Mental Health
- Professional Program in Child and Adolescent Treatment
- Professional Program in Eating and Weight Disorders
- Professional Program in Neuropsychological Assessment
- Professional Program in the Study of Loss and Grief
- Professional Program in Trauma-Informed Interventions
- Professional Program in the Treatment of Anxiety Disorders
- Professional Program in the Treatment of Mood Disorders

**Business**
- Certificate Program in Accounting
- Certificate Program in Business Administration
- Certificate Program in Business Analysis
- Certificate Program in Entrepreneurship and Small Business Management
- Certificate Program in Finance
- Certificate Program in Leadership and Management
- Certificate Program in Marketing
- Certificate Program in Project Management
- Paralegal Studies Program
- Professional Program in Agile Management
- Professional Program in Business Process Management
- Professional Program in Women and Leadership
- Professional Sequence in Integrated Marketing Communications
- Professional Sequence in Marketing Metrics
- Professional Sequence in Personal Financial Planning
- Professional Sequence in Project Human Resource Management
- Professional Sequence in Project Quality Management
- Professional Sequence in Project Risk Management
- Professional Series in Strategic Online Marketing
- Professional Sequence in Wealth Management

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
UC Berkeley Extension offers widely respected professional certificates and specialized programs of study to ensure students get the training to advance in their careers and meet their personal goals.

Our highly motivated students come from diverse backgrounds. Most are adult learners who hold bachelor’s degrees, and more than a third have graduate degrees. But no matter what stage of their careers or education, all Extension students share a desire for high-quality training and education.

To help working adults and full-time students reach their goals, Extension offers hundreds of courses every term, beginning nearly every week of the year, in the evenings and on the weekends at multiple locations in Berkeley, San Francisco, and Belmont. For even greater convenience, many of our courses, professional certificates, and specialized programs of study are also available via online instruction. Learn more at extension.berkeley.edu/cert.

**Computer Technology and Information Management**
- Certificate Program in UNIX/Linux System Administration
- Microsoft Access Series
- Post-Baccalaureate Certificate in Information Systems and Management (ISM)
- NEW! Professional Program in Formal Software Development
- NEW! Professional Program in Quantitative Analysis
- Professional Program in Restaurant Technology Administration
- Professional Sequence in Business Intelligence and SAS Analytics Software
- Professional Sequence in Database Management
- Professional Sequence in Java Programming
- Professional Series in Virtual and Cloud Computing

**Engineering, Construction, and Facilities Management**
- Certificate Program in Construction Management
- Certificate Program in HVAC
- Online Certificate Program in Integrated Circuit Design and Techniques
- NEW! Professional Program in Manufacturing Management and Innovation
- Professional Sequence in Facilities Management
- Professional Series in Smart Grid Technology

**Humanities, Languages, and Personal Development**
- Professional Sequence in Wine Studies

**Sciences, Biotechnology, and Mathematics**
- Certificate Program in Clinical Research Conduct and Management
- Post-Baccalaureate Health Professions Program
- Professional Biomedical Sciences Program
- Professional Program in Biopharmaceutical Business
- Professional Program in Biopharmaceutical Product and Process Development
- Professional Program in Bioscience Manufacturing and Supply Chain
- Professional Program in Quality and Compliance for Biotechnology
- Professional Program in Regulatory Affairs

**Sustainability Studies**
- Professional Program in Corporate Social Responsibility Reporting
- Professional Program in Leadership in Sustainability and Environmental Management
- Professional Program in Responsible Global Change Management
- Professional Program in Solar Energy and Green Building
- Professional Program in Sustainability and Energy
- Professional Program in Sustainability and Transportation
- Professional Program in Sustainable Design

**Writing, Editing, and Technical Communication**
- Post-Baccalaureate Certificate Program in Writing
- Professional Sequence in Editing
- Professional Sequence in Technical Communication
You're invited to attend any or all of our spring programs for the general public. This is your chance to learn more about intriguing and important topics and to get better acquainted with brilliant thinkers and Bay Area luminaries. Reserve your place today at extension.berkeley.edu/enroll.

The Business of Biotechnology
Capture mysteries of the drug development process and the convoluted funding trail in biotechnology, from venture capital through that all-important initial public offering. Get a sense of how venture capital deals in biotechnology are viewed and funded and what sources of information and funding are available. Hear about the rules of the game and how to play to win.

EDP 426411
Constance McKee, M.B.A.
1 meeting
Tuesday, 5–7 pm
February 1
San Francisco: Downtown Center • FREE

Mental Disorders: Understanding the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)
Join Alan F. Schatzberg, president of the American Psychiatric Association, as he shares his professional insight into the latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Get a briefing on the historical development of the DSM, and gain an understanding of how the manual affects the care of patients with psychiatric or behavioral disorders.

EDP 406546
Alan F. Schatzberg, M.D.
1 meeting
Wednesdays, 4–6 pm
February 9
San Francisco: Downtown Center • FREE

Educators Job Fair
Attend UC Berkeley Extension’s Educators Job Fair, an excellent opportunity for educators and students to meet with employers in the field of education, including ESL, adult and career technical education, and educational technology. School districts; charter, public, and private schools; volunteer organizations; and private language schools looking for ESL teachers locally and abroad are just some of the groups attending.

Free preregistration is recommended. Registration at the door is $5.

EDP 206771
1 meeting
Saturday, 10 am–1 pm
March 12
Berkeley Campus: See Web for building and room details

30TH ANNUAL PANEL ON THE PRESIDENCY
Obama at Midterm: A Report Card
Halfway through his term, how do we assess the presidency of Barack Obama? How did he deal with the economic and foreign-policy dilemmas he inherited? How did his election change the dynamics of both parties? And in the wake of the midterm elections, how should he seek to lead the country for the remaining two years of his term? Listen in as a panel of experts describe the Obama administration.

EDP 026328
1 meeting
Monday, 7:30–9:30 pm
March 14
Berkeley Campus: 155 Dwinelle Hall • FREE

Advancing the Green Economy: Achieving Impact from the Office to the Ecosystem
Explore the connections between choices made in the office and the health of ecosystems and people. Hear stories about how businesses are learning to boost profits and productivity by using and selling green products. Gain valuable tips on how to identify the products, partners, and certifications that can help your company achieve measurable positive impacts and advance the green economy.

EDP 426320
Jonathan L. Gelbard, Ph.D.
1 meeting
Thursday, 6:30–8 pm
March 17
Berkeley Campus: Alumni House • FREE

Empowering 21st-Century Teachers and Learners
Educators, students, and parents are invited to attend this dynamic and innovative free seminar for an inside look at the major trends in the use of Web 2.0—from e-learning to professional development—including important steps that educators, parents, and students can take now to prepare themselves for the changes ahead.

EDP 206805
1 meeting
Saturday, April 16
Berkeley Campus: See Web for updates • FREE

Cal Day 2011
Join UC Berkeley Extension in celebrating Cal Day with the UC Berkeley campus. Don’t miss this opportunity to attend lectures by esteemed professors, visit galleries and museums, see performances, and take part in hands-on programs for the whole family. For a complete schedule, visit www.berkeley.edu/calday.

Saturday, April 17, 9 am–4 pm
Berkeley Campus • FREE

Is the Medium Still the Message?
Join two distinguished journalists as they participate in a lively discussion about the future of journalism and possible variants of that media-to-be. It’s almost commonplace to hear reports about the death of newspapers, but is it really the death of newsprint? Can a newspaper exist without the paper, or does a change in medium necessitate a change the message for journalists and journalism?

EDP 026112
Steve Fainaru, managing editor of the Bay Citizen, and Neil Henry, dean of the UC Berkeley School of Journalism
1 meeting
Tuesday, 7–9 pm
April 26
Berkeley: Golden Bear Center • FREE

14th-Annual Student Reading Series
Come hear students in the Post-Baccalaureate Certificate Program in Writing share their works of poetry, nonfiction, and fiction at our annual student reading series.

Sunday, May 7, 4 pm
Books Inc., 1601 Van Ness Ave., San Francisco • FREE

Sunday, May 22, 3 pm
Diesel, A Bookstore, 5433 College Ave., Oakland • FREE
New Courses For Spring 2011

ART AND DESIGN
- Art and Architecture of the Ottoman Empire
- Audiences in Contemporary Art
- Behind the Scenes of the Antiques World
- Building Components and Systems for Interior Architecture
- Chinese Landscape Painting
- Colorful Painting: Observation and Intuition
- Cultivating the Construction of Sanctuaries
- Digital Presentation Techniques
- InDesign and Interactivity

BEHAVIORAL AND HEALTH SCIENCES
- Assessing Levels of Care and the Use of Family Therapy in the Treatment of Eating Disorders
- Developing Skills for Culturally Affirming Managers and Supervisors
- Intimate Partner Violence and Substance Use, Abuse, and Addiction
- Nutrition and Eating and Weight Disorders
- Psychotherapy with the Elderly: A Psychodynamic and Humanistic Perspective
- Treating Depression and Chemical Dependence in Older Adults

BUSINESS
- BPM 3: Performance Measurement, Enterprise, and Technology
- Building, Presenting, and Executing a Business Plan
- Coaching Skills and Practices for Business Leaders and Management Professionals
- Enterprise and Requirements Analysis
- Organizational Communication Strategies for Managers
- From Innovation to Commercialization: The Realization of Business Ideas
- Leadership, Influence, and Power in Organizations
- Project Chartering
- Solution Assessment and Validation, Underlying Competencies
- Special Events Project Planning
- Sustainability and Social Responsibility for Project Managers

COMPUTER TECHNOLOGY AND INFORMATION MANAGEMENT
- Adobe ColdFusion: Introduction
- Benefits of Restaurant Online-Ordering Systems
- Building Applications Using C# and .NET Framework
- Creating a High-Tech Restaurant Website
- Financial Quantitative Analysis and Modeling Using Excel
- Formal Software Development: Formal Semantics
- Formal Software Development: Main Concepts of Logic
- Formal Software Development: Reasoning with Models
- Increase Sales with Restaurant Online Order Catering
- Introduction to Statistical Analysis with SPSS
- Mastering Restaurant Online Reservation Systems
- Mining Business Intelligence with Machine Learning
- Profitable IT Requirements for Opening a New Restaurant
- Quantitative Analysis: Data Mining Using SQL
- Quantitative Analysis: ERwin® Data Modeling Essentials
- Quantitative Analysis: Toad for Data Analysts
- Quantitative Analysis: Using SAP BusinessObjects
- Software Testing for Web Applications

EDUCATION
- Curriculum Design and Assessment in Career Technical Education
- Literacy Assessment and Instruction for Intermediate and Advanced Learners
- Observing and Assessing the Young Literacy Learner
- Practicum in College Admission Advising
- SDAIE/Special Needs for Career Technical Education

ENGINEERING, CONSTRUCTION, AND FACILITIES MANAGEMENT
- Effective Electromagnetic Compliance Strategies
- HVAC Mechanical Design Codes
- Introduction to RFID Enterprise Systems and Strategies
- Introduction to Semiconductor Manufacturing for Nonengineers
- Lean Manufacturing: Assembly
- Lean Manufacturing: Information Systems
- Lean Manufacturing: Introduction
- Lean Manufacturing: Logistics
- Lean Manufacturing: Management
- Lean Manufacturing: Quality
- Lean Manufacturing: Setting Up New Production Lines
- Lean Manufacturing: Working with Machines/Jidoka
- Smart Grids: Internet of Things
- Smart Grids: Microgrids

HUMANITIES, LANGUAGES, AND PERSONAL DEVELOPMENT
- Fundamentals of Augustinian Philosophy
- Wine and Dessert
- World Cities and Globalization

SCIENCES, BIOTECHNOLOGY, AND MATHEMATICS
- Best Practices in Project Management of CMC Planning
- Immunobiology: Molecular Pathogenesis and Inflammation
- Introduction to Parasitology
- Preparing for Submissions and Inspections
- Principles of Product and Process Development
- Procurement Through Distribution: Logistics
- Product Characterization and Analytical Development
- Product Definition and Delivery
- The Role of Product and Process Development

SUSTAINABILITY STUDIES
- Biologies: Designing the Designer
- California Green Building (CALGreen) Code: Overview
- Concepts of Environmental Sociology and Sustainability
- Ecology for Designers
- Environmental Justice: History, Politics, and Policy
- Ethno-Ecology and Architecture: Learning from Past Cultures
- Fundamentals of Energy and the Energy Industry
- Fundamentals of Green Leadership and Sustainability
- Hot Topics in Green Policy and Sustainability Programs
- Introduction to Renewable Energy Technologies
- Local Climate Change Policy and Programs
- Principles of Ecology for Nonscientists
- Sustainable Remediation Methods for Soils and Water
- Sustainable Urbanism, Transit, and Climate Change
- Understanding the LEED Credential

TECHNOLOGY
- Introduction to Renewable Energy Technologies
- Local Climate Change Policy and Programs
- Principles of Ecology for Nonscientists
- Sustainable Remediation Methods for Soils and Water
- Sustainable Urbanism, Transit, and Climate Change
- Understanding the LEED Credential

WRITING, EDITING, AND TECHNICAL COMMUNICATION
- Brushing Up on English Grammar
- Successful Blogging
- The Well-Crafted Memoir
- Traditional and Self-Publishing Opportunities for Writers

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Taking the initiative after seeing his partner successfully switch gears and engage in landscape architecture studies at UC Berkeley Extension, David Guiang is now just a few months away from completing his own studies in the Certificate Program in Interior Design and Interior Architecture. A former online store merchandiser at Apple Inc., Guiang holds a bachelor’s degree in business administration from San Francisco State University.

Guiang credits one of his UC Berkeley Extension instructors with encouraging him to apply for an internship in 2007 at architecture and design firm Hooks ASD, where he is now a designer. “My instructor and mentor said, ‘I think you should go for it! You have a strong-enough portfolio of work to prove to a firm that you’re ready to enter the design world,’” he says. “And sure enough, I interviewed, and I was hired.”

Making the transition from one career to another is a challenge, but career changers bring many other desirable skills to new employers than just degrees, as Guiang can attest. “One of the reasons I was hired at Hooks ASD was that I was a student here at Berkeley Extension and they were looking for someone who already had professional experience,” he says. “And in addition to that, I had new skills that were immediately applicable to the interior design field.”
Sharpen your professional skills. UC Berkeley Extension has the courses you need to develop and stay up to date in all aspects of art and design.

Learn the latest techniques in graphic design. Discover the newest trends in green building. Or take a studio class in drawing, painting, sculpture, or photography. Focus on landscape architecture, interior design, or visual arts, and earn a certificate from a program that professionals recognize for quality. Work with award-winning designers, artists, and industry professionals to refine your portfolio, gain hands-on experience with local firms, and cultivate a professional network to advance your career.

Evening, weekend, and online classes offer the flexibility that fits your busy schedule. For the professional credential you need and the supportive atmosphere of professional and artistic growth you want, there’s no better place than UC Berkeley Extension.

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Free Information Sessions
Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Certificate Program in Interior Design and Interior Architecture
EDP 016121
Tuesday, January 18, 6:30–8 pm
San Francisco: Art and Design Center
EDP 016188
Monday, May 9, 6:30–8 pm
San Francisco: Art and Design Center

Certificate Program in Landscape Architecture and the Professional Sequence in Cultural Landscape Preservation and Management
EDP 016113
Tuesday, January 11, 6:30–8 pm
San Francisco: Art and Design Center
EDP 016162
Wednesday, May 18, 6:30–8 pm
San Francisco: Art and Design Center

Visual Arts

COURSE INFORMATION
(415) 284-1041
visualarts@unex.berkeley.edu
extension.berkeley.edu/subject/visual.html

Post-Baccalaureate Certificate in Visual Arts and Professional Programs in Drawing, Painting, and Digital Photography
Whether you are new to visual arts or a seasoned artist dedicated to refining your skills and applying to graduate school, come to a free, no-obligation evening and learn about how our diverse programs can help you develop as an artist. For more information about the Post-Baccalaureate Certificate in Visual Arts, see p. 13 or visit extension.berkeley.edu/visual.html. For more information about the Professional Programs in Drawing, Painting, and Digital Photography, see pp. 12–15 or visit extension.berkeley.edu/art.

EDP 016998
1 meeting
Tuesday, 6:30–8 pm
January 25
San Francisco: Art and Design Center • FREE

Art History and Museum Studies

NEW THIS TERM
Art and Architecture of the Ottoman Empire
X400.7 • 1 semester unit in Art History
An elective in the Post-Baccalaureate Certificate in Visual Arts
Study the art and architecture of the Ottoman Empire, including the Ottoman form of the mosque and the wondrous works of master architect Sinan and his masterpiece, the mosque in Edirne. Revel in the mysteries of Topkapi Palace—epicenter of the Sultan’s absolute power—and explore theories about its relative smallness, its complicated plan, and the splendor of its decorations.

EDP 026013
Birgit Urmson, M.A.
5 meetings
Mondays, 6:30–9:30 pm
February 7–March 14 (no meeting February 21)
San Francisco: Art and Design Center • $325

French Painting in the Romantic Era
X406.2 • 2 semester units in Art History
An elective in the Post-Baccalaureate Certificate in Visual Arts
Examine the art of the French masters in the context of popular visual culture, literary movements, and political events in the dynamic period beginning with the rise of Napoleon and continuing through the 1870s. Witness, through illustrated lectures, the repercussions of David’s neoclassical teachings on the work of his gifted pupils; examine how Ingres, Gericault, and Delacroix gave shape to Romanticism in France; discover in the landscapist Corot a figure painter of genius; probe critical social questions through the work of Daumier, Millet, and Courbet; and uncover the artistic framework for the age of modernism.

EDP 016857
Josine Smits, Ph.D.
10 meetings
Thursdays, 6:30–9:30 pm
January 13–March 17
San Francisco: Art and Design Center • $455

Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.
NEW THIS TERM

Audiences in Contemporary Art
X446.3 • 1 semester unit in Art History
An elective in the Post-Baccalaureate Certificate in Visual Arts

Following the themes of the Audience as Subject exhibition at the Yerba Buena Center for the Arts, you investigate the dramatic and political potential of representing corporeal audiences in contemporary art. What types of identities are produced by different-size venues such as theaters, museums, outdoor concerts, or sporting events? How are new representations of audience challenging Guy Debord's notion of mediated spectacle and Jacques Rancière's doubts about the relationship between looking and knowing?

EDP 016840
Betti-Sue Hertz, M.F.A.
3 meetings
Tuesdays, 6–9 pm
February 15–May 3
San Francisco: Art and Design Center • $325

Contemporary Art: History and Theory
X442 • 2 semester units in Art History
A requirement in the Post-Baccalaureate Certificate in Visual Arts

Contemporary art’s succession of contending and often conflicting ideas and styles challenges those who view art as a mode of self-expression that nevertheless manages to be generally accessible. Examine the radical vision that drove disparate contemporary movements such as pop, minimalism, and conceptualism. Explore how forms such as performance, body, and land art expanded the concept of what it means to create fine art. You ultimately gain an understanding of the impulses, interests, and ideas that drove the artistic movements that have shaped the world into the 21st century.

EDP 01667
DeWitt Cheng, M.F.A.
10 meetings
Tuesdays, 6:30–9:30 pm
March 22–May 24
San Francisco: Art and Design Center • $455

Post-Baccalaureate Core Courses

Post-Baccalaureate Seminar 1: Portfolio and Critique
X495 • 2 semester units in Art
A requirement in the Post-Baccalaureate Certificate in Visual Arts

Present original artwork to a group of your peers and receive in-depth responses regarding issues of meaning and content, as well as technical and formal resolution. Get useful feedback on the development of your portfolio of artwork. Discuss relevant topics in visual art and culture, and develop your vocabulary and skills of critical awareness. Note: Please bring your original artwork to the first meeting.

Prerequisite: Post-Baccalaureate Seminar 1: Portfolio and Visual Dynamics X401 or consent of instructor

EDP 016675
Amy Berk, M.F.A.
10 meetings
Mondays, 6:30–9:30 pm
March 14–May 16
San Francisco: Art and Design Center • $495

Drawing

Drawing Fundamentals
X405 • 2 semester units in Art
A requirement in the Specialized Program in Drawing

In this introductory course to the fine art of drawing, you develop observational abilities and rendering skills. The instructor presents methods of describing objects in terms of line, value, shape, and texture. Course projects help you explore the principles of light, space, composition, and perspective using a variety of media and techniques.

Sec. 1 EDP 016709
Pamela Lanza, M.F.A.
12 meetings
February 12–May 7 (no meeting February 19)
San Francisco: Art and Design Center • $455

Sec. 2 EDP 016725
Sheila Ghidini, M.F.A.
12 meetings
February 15–May 3
San Francisco: Art and Design Center • $455

Drawing Intermediate

X406 • 2 semester units in Art
A requirement in the Specialized Program in Drawing

Focus on rendering skills and creative approaches to composition and subject. You start by drawing almost exclusively from three-dimensional objects to hone representational skills and challenge creativity. The class includes in-depth studies of value, forms in space, line, expressive, and imaginative drawing, as well as an introduction to the figure.

Prerequisite: Drawing Fundamentals X405 or consent of instructor

EDP 016717
Christian Fagerlund, M.F.A.
12 meetings
Wednesdays, 1:30–4:30 pm
February 16–May 4
San Francisco: Art and Design Center • $455
NEW THIS TERM
Specialized Program in Drawing

The Specialized Program in Drawing provides you with a cohesive curriculum of studio-based courses and a supportive learning environment in which to learn and practice the essential techniques and materials of drawing. If you are interested in learning to draw for personal growth and artistic self-expression, this program meets your needs. It’s also beneficial if you seek professional development for a career that requires artistic skills.

Curriculum Requirements
The curriculum consists of 3 required courses and a minimum of 2 electives for a total of 10 semester units (180 hours of instruction).

Required Courses
- Drawing Fundamentals X405 (offered every term)
- Drawing Intermediate X406 (offered spring and fall terms)
- Figure Drawing X415 (offered spring and summer terms)

Electives Available This Term
- Exploring the Portrait and Self-Portrait X434
- Pastel X408
- Pen and Ink Drawing X432

Learn More and View the Flyer
extension.berkeley.edu/spos/drawing.html (415) 284-1041
visualarts@unex.berkeley.edu
Enroll using EDP 022476

Figure Drawing
X415 • 2 semester units in Art
A requirement in the Specialized Program in Drawing; an elective in the Post-Baccalaureate Certificate in Visual Arts
Learn to draw an anatomically correct and aesthetically interesting human figure. Working from model poses of varying lengths and exercises using various drawing media and techniques, you learn the concepts of proportion, lighting, foreshortening, and composition necessary to describe the figure realistically. Note: Bring charcoal or soft-lead pencils and an 18”x24” drawing pad or newsprint to the first class.
Prerequisite: Drawing Fundamentals X405 or consent of instructor
EDP 016741
Christian Fagerlund, M.F.A.
12 meetings
Wednesdays, 6:30–9:30 pm
February 16–May 4
San Francisco: Art and Design Center • $455

Pastel
X408 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Drawing
Colored pastel is one of the most versatile and expressive mediums in contemporary drawing. Through demonstrations and slide lectures, you learn the history of pastel and the wide variety of possible techniques. Exercises include working from still life, photograph, landscape, and the figure. Note: Bring any pastels you currently use and three pieces of gray-toned paper to the first meeting.
Prerequisite: Drawing Fundamentals X405 or consent of instructor
EDP 016824
Donald Bradford, M.F.A.
12 meetings
Thursdays, 6:30–9:30 pm
February 17–May 5
San Francisco: Art and Design Center • $455

Pen and Ink Drawing
X432 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Drawing
Explore both traditional and innovative approaches to line drawing with pen and ink. Demonstrations introduce you to the different types of pens, papers, and inks. Course projects cover a full repertoire of line-making techniques, including gesture, contour, hatching, stippling, and developed and freestyle lines, as well as the use of ink washes for grounds and shading. Note: Bring black felt-tip, gel, or rollerball drawing pens and a 9”x12” sketchbook to the first class.
Prerequisite: Drawing Fundamentals X405 or consent of instructor
EDP 016816
Pamela Lanza, M.F.A.
12 meetings
Mondays, 6:30–9:30 pm
February 7–May 2 (no meeting February 21)
San Francisco: Art and Design Center • $455

Exploring the Portrait and Self-Portrait
X434 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Drawing
Explore the expressive use of line, the dramatic values of light and shadow, and the basics of human anatomy. Slide-illustrated lectures present portraits and self-portraits using mood, memory, photography, abstraction, and fantasy as expressive tools. Note: Bring an 18”x24” newsprint pad, an 18”x24” drawing pad, pencils, and charcoal to the first class.
Prerequisite: Drawing Fundamentals X405 or consent of instructor
EDP 016733
Glenn Hirsch, M.F.A.
12 meetings
Mondays, 6:30–9:30 pm
February 7–May 2 (no meeting February 21)
San Francisco: Art and Design Center • $455
Post-Baccalaureate Certificate in Visual Arts

The Post-Baccalaureate Certificate in Visual Arts provides a critical bridge between talent and skill. This exciting curriculum provides the rigorous studio practice and the conceptual and art-historical framework necessary to develop a portfolio of work for application to graduate programs in fine art. Gain a Berkeley-quality education in the visual arts that you can complete on a part-time or full-time basis.

Curriculum Requirements
The curriculum consists of a minimum of 13 courses for a total of 24 semester units (360 hours of instruction), including 6 required courses (10 semester units), 1 art history elective (2 semester units), and a minimum of 6 visual arts electives (12 semester units).

Prerequisites
Completion of one or more of the specialized programs of study in drawing, painting, or digital photography or equivalent. A bachelor’s degree is required to register for the Post-Baccalaureate Certificate in Visual Arts.

Required Courses
We recommend taking these courses in the following sequence:
- Post-Baccalaureate Seminar 1: Portfolio and Visual Dynamics X401 (offered fall term)
- Modern Art: History and Theory X441 (offered fall term)
- Contemporary Art: History and Theory X442 (offered spring term)
- Post-Baccalaureate Seminar 2: Portfolio and Critique X495 (offered spring term)
- Post-Baccalaureate Seminar 3: Portfolio and Professional Practices X495.1 (offered summer term)
- Portfolio Review 801 (offered spring and summer terms)

Electives
For a list of electives available this term, visit extension.berkeley.edu/cert/visualarts.html.

Learn More and View the Brochure
extension.berkeley.edu/cert/visualarts.html
(415) 284-1041
visualarts@unex.berkeley.edu

Enroll using EDP 022442
NEW THIS TERM
Specialized Program in Painting

The Specialized Program in Painting provides you with a cohesive curriculum of studio-based courses and a supportive learning environment in which to learn and practice the essential techniques and materials of painting. If you are interested in learning to paint for personal growth and artistic self-expression, this program meets your needs. It’s also beneficial if you seek professional development for a career that requires artistic skills.

Curriculum Requirements
The curriculum consists of 3 required courses and a minimum of 2 electives for a total of 10 semester units (180 hours of instruction).

Required Courses
• Painting Fundamentals X410 (offered every term)
• Color Theory for the Visual Arts X403 (offered spring and fall terms)
• Painting Intermediate X411 (offered every term)

Electives Available This Term
• The Abstract in Nature X427
• Chinese Landscape Painting X449.1
• Colorful Painting: Observation and Intuition X411.2
• Mixed-Media Painting X440
• Painting Workshop X470

Learn More and View the Flyer
extension.berkeley.edu/spos/painting.html (415) 284-1041 visualarts@unex.berkeley.edu
Enroll using EDP 022484

Painting

Painting Fundamentals
X410 • 2 semester units in Art
A requirement in the Specialized Program in Painting
Get an introduction to the essential materials and techniques of painting, including building and stretching a canvas, mixing color, underpainting, glazing and washing, dry brushing, and using a palette knife. You also explore the use of composition, line, contrast, texture, and color. Demonstrations, slide-illustrated lectures, and individual and group critiques give you a basis for developing visual awareness and artistic self-expression.

Sec. 1 EDP 016907
Larry Robinson, M.F.A.
12 meetings
Wednesdays, 6:30–9:30 pm
February 16–May 4
San Francisco: Art and Design Center • $455

Sec. 2 EDP 016915
Larry Robinson, M.F.A.
12 meetings
Thursdays, 1:30–4:30 pm
February 17–May 5
San Francisco: Art and Design Center • $455

Color Theory for the Visual Arts
X403 • 2 semester units in Art
A requirement in the Specialized Program in Painting, an elective in the Post-Baccalaureate Certificate in Visual Arts
Strengthen your use of color by understanding how colors interact and which conditions create harmony and disharmony. This foundation course for basic painting includes lectures and projects on perception and color intensity, the value scale and simultaneous contrast, the effects and physics of color, and theories on color psychology.

EDP 016659
Larry Robinson, M.F.A.
12 meetings
Tuesdays, 1:30–4:30 pm
February 15–May 3
San Francisco: Art and Design Center • $455

Painting Intermediate
X411 • 2 semester units in Art
A requirement in the Specialized Program in Painting, an elective in the Post-Baccalaureate Certificate in Visual Arts
Expanding on the basic painting techniques and principles learned in Painting Fundamentals X410, this course further engages you in the use of composition, color, contrast, light, and movement. Image-illustrated lectures, demonstrations, and individual and group critiques provide opportunities to expand your artistic skills.

Prerequisite: Painting Fundamentals X410 or consent of instructor

EDP 016782
Eva Bovenzi, M.F.A.
12 meetings
Thursdays, 6:30–9:30 pm
February 17–May 5
San Francisco: Art and Design Center • $455

Painting Workshop
X470 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Painting
By focusing on personal expression, this workshop gives you an opportunity to explore your creative ideas. You are encouraged to take risks, to explore unpredictable rather than predictable painting, and to engage in painting rather than picture making.

Prerequisite: Painting Fundamentals X410 or consent of instructor

Sec. 1 EDP 016790
Larry Robinson, M.F.A.
12 meetings
Mondays, 7:30–10:30 pm
February 7–May 2 (no meeting February 21)
Berkeley Campus: 375 Kroeber Hall • $455

Sec. 2 EDP 016956
Eva Bovenzi, M.F.A.
12 meetings
Thursdays, 9:30 am–12:30 pm
February 10–April 28
San Francisco: Art and Design Center • $455
ART AND DESIGN

The Specialized Program in Digital Photography provides a cohesive curriculum of studio-based courses and a supportive learning environment in which to learn and practice the essential techniques and materials of digital photography. If you are interested in learning digital photography for personal growth and artistic self-expression, this program meets your needs. It’s also beneficial if you seek professional development for a career that requires artistic skills.

Curriculum Requirements
The curriculum consists of 3 required courses and a minimum of 2 electives for a total of 10 semester units (150 hours of instruction).

Mixed-Media Painting
X440 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Painting
Learn various painting and drawing methods, textural effects, and collage techniques that encourage improvisation and experimentation in your work. The instructor demonstrates the use of water-based painting media and their combination with drawing media, including pencil, charcoal, and ink.

Prerequisite: Painting Fundamentals X410 or consent of instructor
EDP 016774
Glenn Hirsch, M.F.A.
12 meetings
Saturdays, 10 am–1 pm
February 12–May 7 (no meeting February 19)
San Francisco: Art and Design Center • $455

NEW THIS TERM
Colorful Painting: Observation and Intuition
X411.2 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Painting
In contemporary art, color can be a concept in itself: cosmic imagery, duality, synesthesia, vibration, or sacred geometry. Explore conscious invention (the illusion of light) and accidental discovery (intuitive mixing in layers), as well as methods for working through psychological blocks, to allow a flowing familiarity with brush, pen, ink, watercolor, gouache, pastel, or oil.

EDP 016758
Glenn Hirsch, M.F.A.
12 meetings
Tuesdays, 6:30–9:30 pm
February 15–May 3
San Francisco: Art and Design Center • $455

The Abstract in Nature
X427 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Painting
Discovering the myriad abstract forms contained in the natural environment provides fertile ground for creative exploration. Using a variety of painting and drawing techniques and media, investigate the ways that line, texture, color, light, and composition are revealed in nature. Working outdoors, you gather raw material in the form of sketches, writings, and found materials collected on-site. In the studio, you use these source materials to create paintings and drawings that distill the imagery into a unique abstract visual language and iconography.

Note: Bring hard and soft graphite pencils, a small sketchbook, and a magnifying glass to the first meeting.
EDP 016923
Eva Bovenzi, M.F.A.
12 meetings
Wednesdays, 9:30 am–12:30 pm
February 9–April 27
San Francisco: Art and Design Center • $455

NEW THIS TERM
Chinese Landscape Painting
X449.1 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Painting
Explore the world of Chinese landscape painting through a study of its history and hands-on experience with its key techniques and materials. Lectures introduce Chinese masterworks and examine the depth and power of this art form. Examine the underlying philosophy of Qi in relationship to the basic tenets of Chinese brush painting, the application of varying blends of ink and water, methods of holding the brush, and the use of speed and pressure in brush application. Instructor demonstrations and course exercises offer you the opportunity to learn the techniques of the masters and to develop your own style.

EDP 016642
Aiqin Zhou, M.F.A.
10 meetings
Saturdays, 1:30–4:30 pm
February 26–April 30
San Francisco: Art and Design Center • $455

NEW THIS TERM
Specialized Program in Digital Photography
The Specialized Program in Digital Photography provides a cohesive curriculum of studio-based courses and a supportive learning environment in which to learn and practice the essential techniques and materials of digital photography. If you are interested in learning digital photography for personal growth and artistic self-expression, this program meets your needs. It’s also beneficial if you seek professional development for a career that requires artistic skills.

Required Courses
• Digital Photography Fundamentals X405 (offered every term)
• Intermediate Digital Photography X405.2 (offered fall and spring terms)
• Digital Photography Advanced X405.6 (offered spring and summer terms)

Electives Available This Term
• Horticultural Photography X429
• Photo Storytelling: Exploring Narrative X411

Learn More and View the Flyer
extension.berkeley.edu/spos/digitalphoto.html
(415) 284-1041
visualarts@unex.berkeley.edu

Enroll using EDP 022492
Photography, Film, and Video

Digital Photography Fundamentals
X405 • 2 semester units in Architecture
A requirement in the Specialized Program in Digital Photography
Learn the basics of digital cameras through an overview of the fundamentals of photography and photographic terminology. The instructor covers the software available for image editing and demonstrates digital effects you can create with your camera. You receive one-on-one time with the instructor to help you learn about your particular make and model of digital camera. Note: A digital SLR camera with interchangeable lenses and raw capture capability is recommended but not required.
EDP 016683
David Papas
10 meetings
Saturdays, 10 am–1 pm
March 19–May 21
San Francisco: Art and Design Center • $455

Intermediate Digital Photography
X405.2 • 2 semester units in Architecture
A requirement in the Specialized Program in Digital Photography; an elective in the Post-Baccalaureate Certificate in Visual Arts
Learn additional skills and terminology, including RAW, file workflow, color management, and the preparation of files for output. Develop your conceptual skills, and participate in lectures, critiques, lab work, and field trips that enhance your knowledge. Note: Bring samples of your previous work to the first class.
Prerequisite: Digital Photography Fundamentals X405 or consent of instructor
EDP 016691
Bryan Hewitt, M.F.A.
10 meetings
Wednesdays, 6:30–9:30 pm
January 12–March 16
San Francisco: Art and Design Center • $455

Digital Photography Advanced
X405.6 • 2 semester units in Architecture
A requirement in the Specialized Program in Digital Photography; an elective in the Post-Baccalaureate Certificate in Visual Arts
Learn advanced digital photography techniques focused on lighting, composing, editing, and presentation strategies. You creatively and conceptually explore a single project that culminates in a cohesive body of work appropriate for presentation to graduate schools, galleries, or prospective employers. Note: Bring samples of your current work to the first session.
Prerequisite: Digital Photography Intermediate X405.2 or consent of instructor
EDP 016931
Bryan Hewitt, M.F.A.
10 meetings
Wednesdays, 6:30–9:30 pm
March 23–May 25
San Francisco: Art and Design Center • $455

Photo Storytelling: Exploring Narrative
X411 • 2 semester units in Architecture
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Digital Photography
Learn to use photographs to tell both fictional and true stories. Working in either traditional film materials or digital media, you collect and construct your narratives for an ongoing photo journal and experiment with editing, sequencing, text, and installation methods to discover the stories in your images. You develop a language to discuss and think critically about photographs. Slide-illustrated lectures, demonstrations, critiques, and course projects clarify the technical aspects of photography while encouraging creative approaches to picture-making.
EDP 016964
Marisa Aragona, M.F.A.
10 meetings
Thursdays, 6:30–9:30 pm
February 17–April 21
San Francisco: Art and Design Center • $455

Horticultural Photography
X429 • 2 semester units in Landscape Architecture
An elective in the Post-Baccalaureate Certificate in Visual Arts and in the Specialized Program in Digital Photography
Build on your basic photographic skills, and learn the art of plant, garden, and landscape photography for personal or professional use. This class alternates between field trips to public and private gardens and classroom critiques of student work. After visiting each garden, using assigned exercises, you produce images that demonstrate new skills and awareness. You also produce a project based on your personal interests to share at the last session. Bring six of your plant and garden photos to the first class.
Prerequisite: Must be able to produce images with a digital or film 35 mm SLR camera using manual settings.
EDP 026039
David Goldberg, B.A.
10 meetings
Saturdays, 1:30–4:30 pm
March 19–May 21
San Francisco: Art and Design Center • $455

The Art of Film
X20 • 3 semester units in Film Studies
An elective in the Post-Baccalaureate Certificate in Visual Arts
Learn the techniques of evaluating and appreciating films. Surveying a range of classic and modern works, you not only learn to recognize what makes a well-crafted motion picture but also discover how motion pictures are made, and investigate current film theories. Topics include the handling of space and time in motion pictures, as well as the history and uses of sound, editing, performance, directing, narrative style, and screenwriting. You are responsible for renting and viewing films as part of this course.
EDP 867739
L. Thomas Pollard, Ph.D.
Enroll anytime
Online • $715
Graphic and Interactive Design

COURSE INFORMATION
(415) 284-1070
designarts@unex.berkeley.edu
extension.berkeley.edu/subject/graphic.html

FREE INFORMATION SESSION
Professional Sequence in Graphic Design
UC Berkeley Extension’s Professional Sequence in Graphic Design offers a study of timeless design principles, accompanied by an appreciation of historical and current design trends. Find out how you can learn from industry professionals to build a comprehensive portfolio and advance in the field. For sequence details, see p. 18 or visit extension.berkeley.edu/spos/graphicps.html.

EDP 026492
1 meeting
Monday, 6:30–8 pm
January 10
San Francisco: Art and Design Center • FREE

Graphic Design Studio I
X30 • 3 semester units in Design
A requirement in the Professional Sequence in Graphic Design
Graphic design encompasses many specialties, from advertising to Web design, illustration to packaging. Through a series of challenging foundation projects, you gain an understanding of the basic principles of graphic design. Design-related skills, portfolio requirements, and work opportunities are also discussed. Guest lecturers give a firsthand look at the imagination and skills applied in graphic design. This course is essential if you are interested in entering the field or beginning the Professional Sequence in Graphic Design.

Sec. 1 EDP 016139
Bruce Yelaska, B.A.
15 meetings
Wednesdays, 6:30–9:30 pm
February 2–May 11
San Francisco: Art and Design Center • $650

Sec. 2 EDP 026500
Instructor to be announced
15 meetings
Thursdays, 6:30–9:30 pm
February 3–May 12
San Francisco: Art and Design Center • $650

Graphic Design Studio II
X43 • 2 semester units in Design
A requirement in the Professional Sequence in Graphic Design
Through lectures, discussions, projects, and critiques, this course develops your skills in composition, color use, and typography. Balancing the conceptual and technical aspects of design, you define your design goals and develop your ability to generate concepts and layouts and present them in a professional manner. Assignments range from logo development to layouts for books, brochures, magazines, posters, and package design.

Prerequisites: See Web.

EDP 016832
Dona Turner, B.F.A.
12 meetings
Mondays, 6:30–9:30 pm
February 28–May 16
San Francisco: Art and Design Center • $615

Principles of Publication Design
X405 • 2 semester units in Design
An elective in the Professional Sequence in Graphic Design
Learn typography and page composition, including grid layout and the principles of contrast, repetition, alignment, and proximity. Through lectures, hands-on projects, and classroom critiques, learn the process used in designing books, brochures, magazines, periodicals, and collateral pieces. Learn how to copy-fit and write design specifications. Guest speakers from the local design community give presentations of their work.

Prerequisite: Access to Quark XPress or Adobe InDesign

EDP 026526
Nancy Cutler, B.S.
10 meetings
Thursdays, 6:30–9:30 pm
March 24–May 26
San Francisco: Art and Design Center • $525

Other Media

Monoprinting Fundamentals
X417.1 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts
Monotype is an exciting and versatile print-making technique that allows artists to quickly develop and expand their creative ideas. Get a thorough grounding in the techniques, materials, and use of the printing press through lectures, demonstrations, and hands-on work. You receive group and individual critiques on your work. A field trip to Aurora Press promises added inspiration.

EDP 016949
Heather Wilcoxon, M.F.A.
12 meetings
Tuesdays, 6:30–9:30 pm
February 15–May 3
San Francisco: Art and Design Center • $455

Experimental Monoprinting
X451 • 2 semester units in Art
An elective in the Post-Baccalaureate Certificate in Visual Arts
Take an experimental approach to monoprinting using nontraditional techniques and mixed media. Appropriate for artists at all levels, the techniques demonstrated are especially effective for painters, who can discover new ways of approaching painting through the process of hand-printing. Techniques demonstrated include photo transfer with gum arabic, packing tape, and beeswax. Explore hand-printing large linoleum block prints, collagraphy, encaustic etching, and monotypes on Plexiglas.

Prerequisite: Monoprinting Fundamentals X417.1 or consent of instructor

EDP 016766
Heather Wilcoxon, M.F.A.
12 meetings
Saturdays, 10 am–1 pm
February 26–May 14
San Francisco: Art and Design Center • $455

Studio, History, and Theory Courses

Graphic Design Studio II
X43 • 2 semester units in Design
A requirement in the Professional Sequence in Graphic Design
Through lectures, discussions, projects, and critiques, this course develops your skills in composition, color use, and typography. Balancing the conceptual and technical aspects of design, you define your design goals and develop your ability to generate concepts and layouts and present them in a professional manner. Assignments range from logo development to layouts for books, brochures, magazines, posters, and package design.

Prerequisites: See Web.

EDP 016832
Dona Turner, B.F.A.
12 meetings
Mondays, 6:30–9:30 pm
February 28–May 16
San Francisco: Art and Design Center • $615

Principles of Publication Design
X405 • 2 semester units in Design
An elective in the Professional Sequence in Graphic Design
Learn typography and page composition, including grid layout and the principles of contrast, repetition, alignment, and proximity. Through lectures, hands-on projects, and classroom critiques, learn the process used in designing books, brochures, magazines, periodicals, and collateral pieces. Learn how to copy-fit and write design specifications. Guest speakers from the local design community give presentations of their work.

Prerequisite: Access to Quark XPress or Adobe InDesign

EDP 026526
Nancy Cutler, B.S.
10 meetings
Thursdays, 6:30–9:30 pm
March 24–May 26
San Francisco: Art and Design Center • $525
Computer Courses

Illustrator I
X461 • 2 semester units in Design
An elective in the Professional Sequence in Graphic Design
Adobe Illustrator is the industry-standard tool for creating vector graphics, a must-have in any graphic designer’s toolbox. Through step-by-step instructions, you learn to use Illustrator’s powerful drawing tools to create original artwork. You also learn how to use the pen tool, transformation tools, layers, color palettes, and gradients, as well as Illustrator’s amazing typographic capabilities. This course is for both print and Web designers.

Prerequisite: Apple Macintosh experience

EDP 016147
Michael Starkman, M.F.A.
10 meetings
Tuesdays, 6:30–9:30 pm
January 18–March 22
San Francisco: Art and Design Center • $825

Photoshop I
X462 • 2 semester units in Design
An elective in the Professional Sequence in Graphic Design
Adobe Photoshop is essential to any graphic designer’s toolbox. Learn the fundamental concepts of Photoshop: using layers, painting tools, blending modes, tonal correction, and retouching and sharpening images. Explore the fundamentals of scanning, image resolution, and appropriate file formats. Projects and lectures emphasize real-world production and collaging techniques. This course is for anyone planning a career in the graphic arts.

Prerequisite: Apple Macintosh experience

EDP 026534
Hugh D’Andrade, B.F.A.
10 meetings
Saturdays, 1:30–4:30 pm
February 26–April 30
San Francisco: Art and Design Center • $790

NEW THIS TERM
InDesign and Interactivity
X496.1 • 1 semester unit in Design
An elective in the Professional Sequence in Graphic Design
Learn how to design interactive documents using Adobe InDesign CS5. Add interactivity to PDF files and create interactive SWF files including animation and video. Learn how to use InDesign to create ePubs and Apple iPad digital magazines.

Prerequisite: InDesign X496 or consent of instructor

EDP 016154
Diane Burns, B.A.
5 meetings
Tuesdays, 6:30–9:30 pm
March 29–April 26
San Francisco: Art and Design Center • $550

Creating Websites with HTML
X453.1 • 2 semester units in Computer Science
Recipient of the Distinguished Course Award from the University Continuing Education Association (UCEA); an elective in the Professional Sequence in Graphic Design
HTML is the universal language that underpins every page displayed on the Web. Using a straightforward, step-by-step approach, you build pages of increasing sophistication and design, acquiring a sound working knowledge of HTML and Web design.

EDP 877985
Julia Ann Smith, Ph.D.
Enroll anytime
Online • $595

Graphic design shapes visual and social culture. The fundamentals of graphic design—exciting ideas, effective communication, and historical context—are essential to everyone working in the field. Study timeless design principles, and gain an appreciation of historical and current design trends. Learn from industry professionals to build a comprehensive portfolio and advance in the field.

Curriculum Requirements
The curriculum consists of 4 required courses and 2 electives for a minimum of 11 semester units (177 hours of instruction).

Required Courses
We recommend taking these courses in the following sequence:
- Graphic Design Studio I X30 (offered every term)
- Graphic Design Studio II X43 (offered spring and fall terms)
- Graphic Design Studio III X411 (offered summer term)
- Graphic Design Studio IV: Portfolio X434 (offered fall term)

Electives Available This Term
- Creating Websites with HTML X453.1
- Illustrator I X461
- InDesign and Interactivity X496.1
- Photoshop I X462
- Principles of Publication Design X405

Learn More and View the Brochure
extension.berkeley.edu/spos/graphicps.html
(415) 284-1070
designarts@unex.berkeley.edu
Enroll using EDP 022406
**Interior Design and Interior Architecture**

**COURSE INFORMATION**

(415) 284-1070  
interiordes@unex.berkeley.edu  
extension.berkeley.edu/subject/interior.html

**Free Information Session:**  
Certificate Program in Interior Design and Interior Architecture

Find out how UC Berkeley Extension’s certificate can help you start or advance your career in interior design and interior architecture. This no-obligation session also gives you an opportunity to meet students and teachers to learn how the certificate enhances your knowledge and career prospects in this field. Prospective students are also able to tour the Art and Design Center at Third and Mission streets to see where courses are held and view examples of work produced by current students. For certificate details, see p. 21 or visit extension.berkeley.edu/cert/intdes.html.

**Phase I**

**Design Principles and Elements**

X475 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture

In this beginning studio course, study and explore the relationship of form and space and the fundamental principles that organize and control the built environment. Learn the basic principles of balance, harmony, rhythm, emphasis, contrast, and proportion that are the foundation of good design. Understand how these principles interact with the elements of scale, form, color, and texture in 2-D and 3-D exercises.

**Sec. 1 EDP 016378**

Shalini Agrawal, M.Arch.  
15 meetings  
Thursdays, 2–5 pm  
San Francisco: Art and Design Center • $795

**Sec. 2 EDP 016386**

Lisa Sullivan, M.Arch.  
15 meetings  
Wednesdays, 6:30–9:30 pm  
February 2–May 11  
San Francisco: Art and Design Center • $795

**Graphic Communication I**

X476.1 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture

Learn the language and uses of mechanical drafting in this foundation course. Produce floor and ceiling plans, sections, and elevations that communicate your design concepts. Throughout the process, you gain an understanding of industry standards and learn how information is organized in a set of construction documents. Enhance your communication skills further as you examine the principles of orthogonal drawings to create one- and two-point perspectives.

**Sec. 1 EDP 016394**

Julie Barron, B.F.A.  
15 meetings  
Tuesdays, 2–5 pm  
February 1–May 10  
San Francisco: Art and Design Center • $825

**Sec. 2 EDP 016402**

Amos Malkin, B.Arch., AIA  
15 meetings  
Thursdays, 6:30–9:30 pm  
February 3–May 12  
San Francisco: Art and Design Center • $825

**Color Theory and Application for Interiors**

X412.7 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture

Color is one of the most powerful, useful, and expressive tools available to design compelling interior spaces. Review color based on the theories of Munsell, Itten, and Albers. Learn how to change the value and intensity of colors using paint. Two-dimensional exercises apply theory to using color in interior space. Two field trips (to be announced) enhance your expertise in the use of color.

**EDP 016436**

Vesta Kirby, M.F.A.  
15 meetings  
Tuesdays, 6:30–9:30 pm  
February 1–May 10  
San Francisco: Art and Design Center • $850

**AutoCAD**

X479.1 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture

Develop your digital communication skills by learning to use drafting and editing commands in Autodesk AutoCAD, the industry-standard computer-aided drawing software. Then, progress with more advanced commands such as XREFs, blocks with attributes, and XCLIPs. Learn to translate your “model/space” drawings into scaled “paper space” files and plot them using multiple viewports.

**Prerequisites:** Basic knowledge of the operation of POs and Graphic Communication I X476.1. It is recommended, but not necessary, to take this class before Revit X479.2.

**Sec. 1 EDP 016584**

Jennifer Dye, M.A.  
15 meetings  
Thursdays, 6–9 pm  
February 3–May 19 (no meeting March 31)  
San Francisco: Art and Design Center • $900

**Sec. 2 EDP 026666**

Jennifer Dye, M.A.  
15 meetings  
Tuesdays, 2–5 pm  
February 8–May 17  
San Francisco: Art and Design Center • $900

ENROLL NOW  VISIT EXTENSION.BERKELEY.EDU/ENROLL  CALL (510) 642-4111
Graphic Communication II  
X476.2 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture  
Acquire the skills to translate 2-D floor plans into 3-D space. Exercises, including the creation of quick sketch vignettes, expand your ability to visualize design concepts and communicate them rapidly and vividly. Discover how to use a variety of media—such as colored pencils, magic markers, and watercolor—to enhance your sketches graphically.  
Prerequisite: Graphic Communication I X476.1  
Sec. 1 EDP 016428  
Jennifer Mahoney, B.A.  
15 meetings  
Wednesdays, 6:15–9:15 pm  
January 26–May 4  
San Francisco: Art and Design Center • $850  
Sec. 2 EDP 016410  
Paul Nowicki, B.Arch.  
15 meetings  
Mondays, 2–5 pm  
January 31–May 16 (no meeting February 21)  
San Francisco: Art and Design Center • $850  
NEW THIS TERM  
Digital Presentation Techniques  
X481 • 2 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture  
Whether you are in the architectural, landscape, or interior design field, gain the skills to create effective concept and design drawings. Get an introduction to Google SketchUp and Adobe Creative Suite 5 (Photoshop, Illustrator, and InDesign), and learn to employ these basic programs to augment your artistic ideas.  
Prerequisites: Graphic Communication II X476.2 and AutoCAD X479.1 or Revit X479.2  
EDP 016543  
Amy Patel, M.Arch.  
12 meetings  
Mondays, 6:30–9:30 pm  
March 7–May 23  
San Francisco: Art and Design Center • $775  
Phase II  
Interior Finishes and Materials  
X480 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture  
Learn to evaluate the characteristics of finishes and surface materials for use in interior applications to determine their appropriateness for different uses. Study how materials are installed and how they transition into one another. Understand the substructure on which they are applied and how to specify materials appropriately. Activities include lectures and panel discussions by product representatives and field trips to showrooms and manufacturing facilities.  
Prerequisites: Design Principles and Elements X475 and Graphic Communication I X476.1  
EDP 016444  
Cheryl Gordon, B.F.A., B.A., LEED AP, IIDA  
15 meetings  
Thursdays, 2–5 pm  
February 3–May 12  
San Francisco: Art and Design Center • $850  
History of Architecture, Interiors, and Decorative Arts II  
X412.5 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture  
Architecture and design changed rapidly from the time of the Industrial Revolution in the 19th century to the period of cultural postmodernism in the late 20th century. In this continuation of the History of Architecture, Interiors, and Decorative Arts I X412.4, you learn about Victorian revival style, the emergence of arts and crafts, and the modern and contemporary movements.  
Prerequisites: History of Architecture, Interiors, and Decorative Arts I X412.4 and Graphic Communication II X476.2  
EDP 016451  
Sandra Poza, B.S., ASID  
15 meetings  
Mondays, 6:30–9:30 pm  
January 10–May 9 (no meeting January 17 and January 31 and February 21)  
San Francisco: Art and Design Center • $825  
Revit  
X479.2 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture  
Learn the basic principles in Autodesk Revit building information modeling (BIM) and its uses in the design process. Participate in hands-on activities to help familiarize yourself with a parametric 3-D modeling program that takes you from design to preliminary construction documentation and presentation layout. You then create floor plans using basic building components, coordinated elevations, 3-D perspectives, and documentation using Revit.  
Prerequisites: Graphic Communication I X476.1 and AutoCAD X479.1  
Sec. 1 EDP 016469  
Tamara Roth, B.F.A., LEED AP ID+C, Associate IIDA  
15 meetings  
Saturdays, 1–4 pm  
January 22–May 19 (no meeting February 19)  
San Francisco: Art and Design Center • $950  
Sec. 2 EDP 016568  
Caroline Nassif, B.Arch., LEED AP, and Stephanie Osorio, M.Arch., LEED AP  
15 meetings  
Wednesdays, 2–5 pm  
January 26–May 4  
San Francisco: Art and Design Center • $950  
Space Planning  
X413.8 • 3 semester units in Architecture  
A requirement in the Certificate Program in Interior Design and Interior Architecture  
Practice and gain experience developing programs that satisfy your clients’ needs and make the best use of space. Learn techniques for assimilating client project information, analyzing program requirements, and developing schematic space-planning solutions for both residential and commercial situations. You also study building codes, fire safety, and barrier-free designs as essential components of laying out interior space.  
Prerequisites: Graphic Communication I X476.1, AutoCAD X479.1 or Revit X479.2, and Design Studio I X482.1  
EDP 016550  
Edwin Walters, CCID, NCIDQ  
15 meetings  
Wednesdays, 6:30–9:30 pm  
February 2–May 11  
San Francisco: Art and Design Center • $950
Certificate Program in Interior Design and Interior Architecture

The professional interior designer is qualified by education, experience, and examination to enhance the function and quality of interior spaces. The Certificate Program in Interior Design and Interior Architecture provides an affordable and comprehensive interior design education that combines studio courses with the study of design theory, history, presentation skills, and resources. Learn from industry professionals, and build a comprehensive portfolio to enter the field of interior design.

Curriculum Requirements
The curriculum consists of 19 required courses (55 semester units) and a minimum of 3 electives (6 semester units) for a total of 61 semester units.

Required Courses

<table>
<thead>
<tr>
<th>Phase I</th>
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<tbody>
<tr>
<td>Design Principles and Elements X475 (offered every term)</td>
<td>Graphic Communication I X476.1 (offered every term)</td>
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<tr>
<td>Color Theory and Application for Interiors X412.7 (offered every term)</td>
<td>AutoCAD X479.1 (offered every term)</td>
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<tr>
<td>Graphic Communication II X476.2 (offered every term)</td>
<td>History of Architecture, Interiors, and Decorative Arts I X412.4 (offered fall term)</td>
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<tr>
<td>Digital Presentation Techniques X481 (offered spring and summer terms)</td>
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<th>Phase II</th>
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<tbody>
<tr>
<td>Design Studio I X482.1 (offered summer and fall terms)</td>
<td>Interior Finishes and Materials X480 (offered spring and fall terms)</td>
</tr>
<tr>
<td>History of Architecture, Interiors, and Decorative Arts II X412.5 (offered spring term)</td>
<td>Revit X479.2 (offered every term)</td>
</tr>
<tr>
<td>Space Planning X413.8 (offered spring and fall terms)</td>
<td>Fundamentals of Lighting Design X484 (offered fall term)</td>
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<tr>
<td>Design Studio II X482.2 (offered spring and summer terms)</td>
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<th>Phase III</th>
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<tr>
<td>Building Components and Systems for Interior Architecture X483 (offered spring term)</td>
<td>Design Studio III X482.3 (offered summer and fall terms)</td>
</tr>
<tr>
<td>Construction Documents X414.6 (offered summer term)</td>
<td>Business Practices for Interior Designers X409 (offered spring and fall terms in 2011 and fall term only beginning in 2012)</td>
</tr>
<tr>
<td>Design Studio IV X482.4 (offered spring and fall terms)</td>
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</tbody>
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Electives Available This Term
- Advanced Revit X485
- Fundamentals of Interior Design X474
- Internship in Interior Design X409.2
- LEED/Green Rating Systems for Interior Designs X488

Learn More and View the Brochure
extension.berkeley.edu/cert/intdes.html
(415) 284-1070
interiordes@unex.berkeley.edu
Enroll using EDP 022137
NEW THIS TERM

Building Components and Systems for Interior Architecture

X483 • 4 semester units in Architecture
A requirement in the Certificate Program in Interior Design and Interior Architecture

Gain an understanding of building components, systems, and processes and the sequence of construction in residential and commercial buildings. By learning how various building systems—plumbing, mechanical, electrical, and environmental controls—are integrated into structures, you can effectively design safe, healthy, and suitable environments for human activity.

Prerequisite: Design Studio I X482.1

EDP 016477
Instructor to be announced

15 meetings

Thursdays, 6–10 pm

February 3–May 12

San Francisco: Art and Design Center • $1,000

Business Practices for Interior Designers

X409 • 3 semester units in Architecture
A requirement in the Certificate Program in Interior Design and Interior Architecture

Develop an awareness and understanding of how the design process is managed and how a design firm is created, managed, and grown. Study the role of the project manager, and investigate the varied roles or careers within the interior design profession so that you can effectively plan your career arc. Through exercises and lectures, you gain an awareness of the business and practice of a residential and commercial interior design firm—which include the financial, legal, and ethical aspects—so that you can actively contribute to the reputation and financial success of your firm.

Prerequisite: Design Studio I X482.1

EDP 016485
Ed Fernandez, B.Arch., and Jayne Bunce, B.F.A., ASID, CID

15 meetings

Wednesdays, 6:30–9:30 pm

January 26–May 4

San Francisco: Art and Design Center • $800
Electives

**Fundamentals of Interior Design**

X474 • 1 semester unit in Architecture

An elective in the Certificate Program in Interior Design and Interior Architecture

Explore the world of residential and commercial interior design in this introductory course. Gain exposure to resources, design theory, history, vocabulary, and the process of designing. For those contemplating enrolling in the certificate, this course provides a good overview of future coursework.

**Sec. 1 EDP 016204**
Jayne Bunce, B.F.A., ASID, CID
6 meetings
Wednesdays, 2–5 pm
March 2–April 6
Belmont: Belmont Center • $425

**Sec. 2 EDP 026559**
Jayne Bunce, B.F.A., ASID, CID
6 meetings
Mondays, 6:30–9:30 pm
April 11–May 16
San Francisco: Art and Design Center • $425

**Advanced Revit**

X485 • 2 semester units in Architecture

An elective in the Certificate Program in Interior Design and Interior Architecture

Picking up where Revit X479.2 leaves off, this course covers more advanced commands and functional applications. Learn how to use Autodesk Revit's powerful building information modeling (BIM) software to harness automatically generated information, and master concepts that independently create custom family parts, renderings, schedules, details, and construction documents that improve work flow.

**Prerequisite:** Revit X479.2

**EDP 026641**
Amy Patel, M.Arch.
12 meetings
Saturdays, 9:30 am–12:30 pm
February 26–May 14
San Francisco: Art and Design Center • $800

**LEED/Green Rating Systems for Interior Design**

X488 • 1 semester unit in Architecture

An elective in the Certificate Program in Interior Design and Interior Architecture

Explore the current sustainability rating systems under LEED, PG&E, and local jurisdictions by taking a commercial interior project through the various steps of certification. This course is ideal for those planning to sit for their LEED Associate or LEED AP/ID+C (Interior Design + Construction) exam.

**EDP 026542**
Jennifer Downing, B.F.A., LEED AP
9 meetings
Wednesdays, 6:30–8:30 pm
January 19–March 16
San Francisco: Art and Design Center • $425

**Internship in Interior Design**

X409.2 • 2 semester units in Architecture

An elective in the Certificate Program in Interior Design and Interior Architecture

Become more knowledgeable about the interior design profession through an internship at a design or architectural firm. With the guidance of the program director and the supervision of the host organization, you work as a junior designer to gain greater exposure to the real design world and prepare for your future profession.

You are responsible for finding an interior design or architectural outfit with which to intern before the course begins. A total of 90 internship hours is required within a period of six months. Before enrolling, call the Interior Design office at (415) 284-1070 to receive an internship packet, complete a request form for your site approval, and then meet with the instructor. To complete the internship, you must provide a daily journal, a paper, an oral presentation summarizing your internship, and an evaluation from your job supervisor.

**Prerequisite:** Design Studio II X482.2

**EDP 016196**
Rachael Hagner, M.Arch., AIA, IIDA
2 meetings
Wednesdays, 11:30 am–7 pm
January 19 and May 25
San Francisco: Art and Design Center • $485

**General Interest**

**NEW THIS TERM**

**Behind the Scenes of the Antiques World**

0.7 ceu

Examine two centuries of antiques and art at seven selected locations in this private, one-day walking tour in San Francisco's design district. Knowledgeable specialists present and analyze specific art pieces and antiques in each gallery. Examine the finer points of antiques and fine art appraisal and connoisseurship. Galleries include Therien & Co., specializing in classic European antiques; the new studio of Darin Geise at Coup d’Etat, a trend-setting dealer who has introduced industrial pieces into the design vocabulary; and the new Ann Getty & Associates design studio. Your guide is Diane Dorrans Saeks, best-selling author of 20 books on design, architecture, style, and décor. Lunch is included.

**EDP 026518**
Diane Dorrans Saeks, B.A.
1 meeting
Saturday, 10 am–5 pm
February 12
San Francisco: Therien & Co., 411 Vermont St. • $170
Principles and Elements of Design

X412 • 4 semester units in Architecture
A requirement in the Certificate Program in Landscape Architecture
Explore and develop your creativity in this beginning studio course. Learn the principles—balance, rhythm, focus, contrast, and proportion—that are the foundation of good design by experimenting with 2-D and 3-D projects. Understand how these principles interact with the elements of scale, form, color, pattern, light, and texture.

EDP 026377
Instructor to be announced
15 meetings
Thursday, 6–10 pm
February 3–May 12
San Francisco: Art and Design Center • $825

Gardens, Parks, and Urban Open Spaces I

X416 • 3 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture; an elective in the Professional Sequence in Cultural Landscape Preservation and Management
Examine the development of the built environment in terms of landscape architecture, architecture, urban design, and their interrelationship. Topics include the influences of Egypt, Mesopotamia, Greece, and Rome; Islamic achievements in Asia; urban planning during the Italian Renaissance; the gardens of Eastern Asia; the emergence and evolution of public parks and open spaces; and contemporary issues. The emphasis throughout the course is on the evolution and growth of the profession of landscape architecture.

EDP 046238
Elizabeth Boults, M.L.A.
January 18–April 12
Online • $820

Gardens, Parks, and Urban Open Spaces II

X418 • 3 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture; an elective in the Professional Sequence in Cultural Landscape Preservation and Management
Study the interrelationship between landscape architecture, architecture, and urban design. Slide-illustrated lectures survey the built environment from the beginnings of the profession of landscape architecture in the 19th-century English social reform movement to the present. Emphasis is on the evolution and growth of the profession of landscape architecture. Course includes a self-driven trip to Sonoma County.

Prerequisite: Gardens, Parks, and Urban Open Spaces I X416

EDP 026385
Jim Chappell, B.Arch., M.C.P., Extension Honored Instructor
15 meetings
Mondays, 6:30–9:30 pm
January 24–May 9 (also Saturday, April 16, 2–5 pm; no meeting February 21 and April 18)
San Francisco: Art and Design Center • $815

Landscape Graphics I

X15 • 1 semester unit in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture
Learn graphic communication methods unique to landscape architectural analysis, design, and client presentation. The focus of the course is orthographic drawing, such as plan, section, and elevation; lettering; and drafting. Emphasis on freehand drawing is limited. Plan to purchase drawing equipment and tools; a list is provided at the first meeting. Bring pencils and paper to the first class.

EDP 026393
Eddie Chau, M.L.A.
15 meetings
Tuesdays, 6:30–9:30 pm
February 1–May 10
San Francisco: Art and Design Center • $715

Landscape Graphics II

X17 • 1 semester unit in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture
This continuation of Landscape Graphics I X15 emphasizes sharpening visual thinking skills for applications in which drawing is used to communicate ideas, processes, and images. A series of drawing exercises includes illustration techniques for plans and elevations. The instructor covers rendering techniques with media such as colored pencils, pastels, markers, pencils, and ink.

Prerequisite: Landscape Graphics I X15

EDP 026401
Instructor to be announced
15 meetings
Tuesdays, 6:30–9:30 pm
February 1–May 10
San Francisco: Art and Design Center • $715

Introduction to Landscape Architecture

X25 • 2 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture
Get an orientation to landscape architecture as an environmental design profession. Lectures and field trips explore the history of landscape architecture; the central ideas of the profession; the role of the designer in the problem-solving process; and the nature, modes, and scope of current landscape architectural practice.

EDP 026369
Jennifer Ivanovich, M.L.A.
10 meetings
Wednesday, 6:30–9:30 pm
February 2–March 23 (also Saturdays, February 5 and March 5, 10 am–1 pm)
San Francisco: Art and Design Center • $600

Foundation Courses
Certificate Program in Landscape Architecture

Landscape architecture is a vital field dealing with a broad range of complex and far-reaching issues. The Certificate Program in Landscape Architecture offers a preprofessional curriculum focused on the numerous and varied opportunities that exist in landscape architecture.

This professional certificate enables you to develop a diverse array of skills, and also aims to reflect current practice and anticipates changes so that you are well equipped to make worthwhile contributions from the outset of your career. The curriculum encourages individual creativity and expression while emphasizing the practical applications of design solutions. In short, this professional certificate offers realistic exposure to the theory and business of landscape architecture.

Curriculum Requirements
The curriculum consists of 21–22 required courses (depending on specific electives taken) for a total of 63 semester units (945 hours of instruction).

Required Foundation Courses
- Introduction to Landscape Architecture X25 (offered every term)
- Principles and Elements of Design X412.1 (offered every term)
- Gardens, Parks, and Urban Open Spaces I X416 (offered fall and spring terms and online)
- Gardens, Parks, and Urban Open Spaces II X418 (offered spring term)
- Landscape Graphics I X15 (offered fall and spring terms)
- Landscape Graphics II X17 (offered spring term)
- Spring Plants and Applications X444 (offered spring term)
  Or
  Summer Plants and Applications X445 (offered summer term)
- Autumn Plants and Applications X446 (offered fall term)
- Studio L1: Environmental Design X116 (offered fall term)
- AutoCAD for Landscape Architecture: Level I X428 (offered summer term)

Required Advanced Courses
- Studio L2: Project Planning and Design X406 (offered fall term)
- Construction Technology I X404 (offered spring term)
- Construction Technology II X405 (offered summer term)
- Planting Design X401 (offered spring and fall terms)
- Advanced AutoCAD for Landscape Architecture: Level II X433 (offered spring term)
- Social Factors in Environmental Design X402 (offered fall term)
- Professional Practice in Landscape Architecture X427 (offered fall term)
- Studio L3: Advanced Landscape Architectural Design X408 (offered spring term)
- Studio L4: Environmental Analysis and Design X407 (offered fall term)
- Studio L5: Site Planning Practicum X409 (offered spring term)

Electives
For a list of available electives this term, visit extension.berkeley.edu/cert/land.html.

Learn More and View the Brochure
extension.berkeley.edu/cert/land.html
(415) 284-1041
landarch@unex.berkeley.edu
Enroll using EDP 022186

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- THE QUALIFICATION CREDIT FOR STATE LICENSING EXAM

GET THE KNOWLEDGE YOU NEED
- URBAN DESIGN
- GRAPHIC TECHNIQUES
- AUTOCAD
- DESIGN THEORY
- PORTFOLIO PRESENTATION
- CONSTRUCTION TECHNOLOGY
NEW THIS TERM
Professional Sequence in Cultural Landscape Preservation and Management

Cultural landscapes are places that include historic, cultural, and natural resources associated with an important historic event, activity, person, or group of people. Gain an understanding of the preservation and management of cultural landscapes, a growing area of professional practice.

Curriculum Requirements
The curriculum consists of 5 required courses for a total of 11 semester units (42 hours of instruction).

Required Courses
- Design with Culture Studio X479 (offered fall term)
- Gardens, Parks, and Urban Open Spaces I X416 (offered spring and fall terms and online)
- Gardens, Parks, and Urban Open Spaces II X418 (offered spring term)
- The Cultural Landscape: Preservation and Sustainable Practice X455 (offered summer term)
- Tools of Preservation: Managing Change in Cultural Landscapes X451 (offered spring term)

Learn More
extension.berkeley.edu/spos/preservation.html
(415) 284-1070
landarch@unex.berkeley.edu

Enroll using EDP 022509

Spring Plants and Applications
X444 • 3 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture

Approximately 125 species of trees, shrubs, and ground covers commonly used in landscaping in Northern California are introduced in this course. Visual characteristics, nomenclature, cultural requirements, and design applications are discussed. The emphasis is on plants especially valued for springtime features such as blooms and new foliage. Participants learn to recognize the plants in several situations and stages of maturity and develop a plant palette varied enough to prepare basic planting plans. Each session includes an outdoor field trip, rain or shine. Wear walking shoes. Note: This is a field-trip course. Class meeting locations change weekly.

Candidates for the Certificate Program in Landscape Architecture who are already skilled in plant identification may be able to waive this course by taking an exam. For information about taking the plant identification waiver exam, call (415) 284-1040.

EDP 016618
Suzanne Arca, B.A.
12 meetings
Saturdays, 9 am–1 pm
February 26–May 21 (no meeting April 16)
Berkeley Campus; See Web for updates • $765

Planting Design
X401 • 3 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture

Review the history of planting in environmental design, and focus on the design process: site analysis, client/user analysis, and schematic design. Learn the concepts of plant massing, scale, space, proportion, color, texture, light, scent, illusion, and seasonal changes, and prepare planting plans based on these concepts.

Prerequisites: Completion of all courses leading up to and including Studio L1: Environmental Design X116

EDP 026427
Patrick Miller, M.L.A.
14 meetings
Tuesdays, 6–10 pm
January 18–April 26 (also Sundays, March 13 and April 10, 9 am–3 pm; no meeting February 15, March 15, and April 12)
San Francisco: Art and Design Center • $965

Advanced AutoCAD for Landscape Architecture: Level II
X433 • 2 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture

Reinforce and improve your ability to create landscape architectural designs using AutoCAD 2010 for Windows. You study concepts such as how to use dialog boxes to adjust settings for dimensions, linetypes, layers, and color. You also learn how to make a script file to manage layers for various plan types and to transfer layers from model-space to paper-space viewports.

Prerequisite: AutoCAD for Landscape Architecture: Level I X428

EDP 026435
Tony Esterbrooks, B.L.A.
14 meetings
Mondays, 6:30–9:30 pm
January 31–May 9 (no meeting February 21)
San Francisco: Art and Design Center • $1,150

Studio L3: Advanced Landscape Architectural Design
X408 • 6 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture

Study advanced landform and planting design, design detailing, preparation of working drawings, and presentation graphics. Discover design solutions at the design-development phase of the project sequence. Lectures address budgets, available materials and technology, and construction industry norms on detailed and integrated design decisions.

Prerequisites: See Web.

EDP 026443
Jacob Tobias, M.L.A.
29 meetings
Mondays and Wednesdays, 6:30–9:30 pm
January 31–May 16 (also Sunday, March 20, 9 am–4 pm; no meeting February 21 and April 18 and 20)
San Francisco: Art and Design Center • $1,990
Studio L5: Site Planning Practicum
X409 • 6 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture
This final course provides detailed guidance on the preparation of a comprehensive set of contract documents for a site planning project. Lecture topics focus on issues of professional practice, including marketing, project management controls, working with other professionals, licensing, and construction administration. Three weekend morning field trips focus on detailing, potential construction difficulties and successful project implementation. You may wish to brush up on either hand-drafting or CAD skills in the weeks prior to starting class.
Prerequisites: All other required courses in the Certificate Program in Landscape Architecture
EDP 016600
Catherine Chang, B.A.
30 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
January 11–April 21 (weekend dates to be arranged; check Web for updates)
San Francisco: Art and Design Center • $1,950

Electives

LEED for Landscape Architects: Shaping a Sustainable Landscape
X471 • 2 semester units in Landscape Architecture
An elective in the Certificate Program in Landscape Architecture
The Leadership in Environment and Energy Design (LEED) program is one of the most widely recognized systems for gauging sustainable development. You examine the application and meaning of sustainable practices in landscape architecture, with emphasis on this and other emerging systems. You learn to identify opportunities for sustainable landscape design, apply a range of design and construction practices within the context of the LEED system, and focus on LEED documentation.
EDP 026450
Geoffrey Katz, M.L.A., ASLA, LEED AP
10 meetings
Tuesdays, 6:30–9:30 pm
March 8–May 24 (no meeting April 19 and April 26)
San Francisco: Art and Design Center • $565

Tools of Preservation: Managing Change in Cultural Landscapes
X451 • 1 semester unit in Landscape Architecture
An elective in the Certificate Program in Landscape Architecture, and in the Professional Sequence in Cultural Landscape Preservation and Management
The preservation of historically significant and culturally important landscapes is a vibrant and growing aspect of landscape architectural practice. Get an introduction to these fundamental tools of the preservation process, and gain an understanding of the function and application of those tools in this survey course. Subject area experts give guest lectures on specific aspects of the preservation process. Learn effective strategies and techniques for managing and enhancing culturally important landscapes as they are inevitably confronted with change or threatened with demolition.
EDP 016626
JC Miller, M.A., ASLA
6 meetings
Saturdays, 9 am–12 pm
March 5–April 9
San Francisco: Art and Design Center • $475

NEW THIS TERM
Cultivating the Construction of Sanctuaries
X480 • 1 semester unit in Landscape Architecture
An elective in the Certificate Program in Landscape Architecture
Learn to map the cycles of construction and cultivation of exterior sanctuaries. Study the relevance of historical sanctuaries spanning global spectrums, analyze drawings, and take field notes transcribing what you see. Through the course’s theoretical and practical knowledge, you are prepared to develop and design a garden or exterior sanctuary. You acquire a broad interpretation of exterior space, from dense urban infrastructures to nature’s wide-open spaces. The focus of this course is to get you engaged with your community and site in order to create a balanced environment.
EDP 026476
Topher Delaney, B.A.
6 meetings
Mondays, 6:30–9:30 pm
March 21–April 18 (also Saturday, April 2, 9 am–1 pm)
San Francisco: Art and Design Center • $600

Sustainable Design
Combine your design talent and interest in green issues with courses in Sustainable Design at UC Berkeley Extension. Every term, we offer courses in architecture and interiors, urban sustainability, and sustainable site design. You learn both theory and real-world applications for the most current sustainable design theories and practices. See p. 180 for complete descriptions of our Sustainable Design offerings, including the Professional Program in Sustainable Design.

Spring 2011 Courses
• Biologics: Designing the Designer X404.1
• Ecology for Designers X404.3
• Ethno-Ecology and Architecture: Learning from Past Cultures X404.2
• Principles of Sustainable Design X409.6
• Practical Applications of Sustainable Design X470.1
• Managing the LEED Documentation Process X402.4
• Sustainable Building Materials X402.1
• Sustainable Project Development X411.3
• Urban Dirt: Designing Sustainable Landscapes On-Structure X411.6

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Ron Crump has a bachelor’s degree in general studies from the University of Michigan. Initially enrolling in management courses for his own professional development, Crump is now combining those studies with his interest in industrial organizational psychology. By taking the courses Behavioral Psychology and Research Methods in Psychology, Crump is broadening his management education with the intent of pursuing a master’s degree in psychology.

“Industrial organizational psychology has a lot to do with management,” Crump explains. “It contributes to an organization’s success by improving the performance, behavior, and well-being of its people.”

After completing several professional certificates and specialized programs of study in management at UC Berkeley Extension, Crump is pleased with the high quality of instruction in Business and Behavioral and Health Sciences. In particular, his Cognitive Psychology instructor, Bernadette Guimberteau, receives high praise. “She’s one of the most organized instructors I’ve ever had,” Crump says. “She’s very good.”
Get the best training for mental health professionals. Whether you’re a licensed clinical social worker, marriage and family therapist, addictions counselor, registered nurse, or psychologist, UC Berkeley Extension is the approved provider you want for your professional development and licensing needs. Instructors who are leading researchers and clinicians offer the latest approaches to challenging issues you face every day—from treating patients with mood or anxiety disorders to facilitating grief counseling groups to diagnosing psychiatric disorders in children or older adults.

Earn a certificate in alcohol and drug abuse studies developed with the UC Berkeley School of Public Health. Or enhance your assessment and treatment skills in a clinical case seminar or workshop. Each course and workshop offers the theoretical and practical information you need to stay up to date and build new expertise. For the education that helps you be your best in your practice, come to UC Berkeley Extension.

UC Berkeley Extension is an approved provider by the California Board of Behavioral Sciences, the American Psychological Association, the Board of Registered Nurses, and the California Association of Alcoholism and Drug Abuse Counselors.

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Behavioral and Health Sciences

Free Information Session

Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Certificate Program in Alcohol and Drug Abuse Studies

EDP 426338
Monday, January 10, 7–8:30 pm
Berkeley: Golden Bear Center

Counseling and Psychotherapy

COURSE INFORMATION
(510) 643-3883
counspsych@unex.berkeley.edu
extension.berkeley.edu/subject/counspsych.html

FREE PUBLIC LECTURE
Mental Disorders: Understanding the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)

Join Alan F. Schatzberg, 2009–2010 president of the American Psychiatric Association, as he shares his professional insight into the latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The fifth edition—the first update since 1994—has attracted considerable interest, and proposed changes were posted on the Web for public comment in February 2010. Get a briefing on the historical development of the DSM, and gain an understanding of how the manual affects the care of patients with psychiatric or behavioral disorders.

Alan F. Schatzberg, M.D., is Kenneth T. Norris Jr. professor and chairman of the Department of Psychiatry and Behavioral Sciences at the Stanford University School of Medicine. Dr. Schatzberg has been an active investigator in the biology and psychopharmacology of depressive disorders. He has authored more than 550 publications and abstracts, including the Manual of Clinical Psychopharmacology (American Psychiatric Publishing, 2010), whose seventh edition was coauthored by Dr. Jonathan O. Cole and Dr. Charles DeBattista. Schatzberg is president of the American Psychiatric Publishing, Inc., and secretary-general of the International Society of Psychoneuroendocrinology. In 2003, he was elected into the Institute of Medicine of the National Academy of Sciences.

Space is limited; preenrollment strongly advised.

EDP 406546
1 meeting
Wednesday, 4–6 pm
February 9
San Francisco: Downtown Center • FREE

Continuing Education Workshops

NEW THIS TERM
Developing Skills for Culturally Affirming Managers and Supervisors

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists

Many clinicians and social service, health, and mental health managers and supervisors lack effective skills in articulating and resolving a range of intercultural issues in their practice and agency. Management, supervision, and consultation tasks related to improving cultural proficiency are examined, including clinical consultation, conflict resolution, and group facilitation. Workshop activities include use of group facilitation tools, multicultural team-building exercises, and the importance of specific process objectives.

EDP 406504
Valerie Edwards, M.S.W., LCSW
1 meeting
Saturday, 9 am–4 pm
April 9
Berkeley: Golden Bear Center • $195

An Experiential Introduction to Art Therapy

1.4 ceu • 14 hours CE credit: BRN, LCSW/MFT, and psychologists

An elective in the Professional Program in the Study of Loss and Grief

Learn innovative, classic, and highly useful methods of engaging clients in personal and group expression of feelings, traumas, problems, insecurities, and other states of the human condition. You learn psychodynamic, analytic, humanistic, behavioral, and mind-body techniques that, when applied, should open up new pathways for working with your clients. This workshop includes a slide lecture, videos, and discussion. You are encouraged to bring a case for discussion about how to develop an art therapy treatment plan. Wear casual clothes for art making. This course is intended for therapists, educators, artists, and those interested in the field of art; no previous art experience is required.

EDP 406280
Janet K. Long, M.A., MFT, ATR-BC, CTP
2 meetings
Saturday and Sunday, 9 am–5 pm
April 30 and May 1
Berkeley: Golden Bear Center • $315

Meet Licensing/Relicensing Requirements and Continuing Education Units

Many of our courses carry continuing education units (CEUs) to help you meet your professional licensure requirements. Continuing education (CE) credit, if available, is listed after the course title.

Note the following abbreviations:

BRN: Board of Registered Nursing (provider 00226), continuing education for registered nurses
CAADAC: California Association of Alcoholism and Drug Abuse Counselors (provider X4C-99-416-0803), continuing education for Certified Alcohol and Drug Counselors
LCSW/MFT: Board of Behavioral Sciences (provider PCE 1505), mandatory continuing education for licensed clinical social workers and marriage and family therapists
CE credit for psychologists: UC Berkeley Extension is approved by the American Psychological Association (APA) to sponsor continuing education for psychologists. UC Berkeley Extension maintains responsibility for this program and its content.

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Loss and Grief

THREE-DAY INSTITUTE

Introduction to Loss and Grief
Issues: Refreshing Old Skills, Learning New Skills

1.8 ceu • 18 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in the Study of Loss and Grief

Loss and grief provide an opportunity to transform deep emotion into healing. This three-day workshop provides an overview of some of the recent approaches to grief counseling and focuses on key topics in the field, including community violence, long-term illness, sudden death, cross-cultural grief, family grief, children and grief, and somatic aspects of grief. This program is not recommended for the newly bereaved.

Guest speakers: Lyn Prashant, Ph.D., CT, CMT; Erika Maslan, MFT; Claire S. Chow, MFT; Gale Bell, Ph.D.; Jennifer Groebe, LCSW; and Jim Hernandez, former Concord Police Department youth violence/gang diversion specialist

EDP 406223
Susan Moore, M.A., FT
3 meetings
Friday–Sunday, 9 am–4 pm
February 25–27
Berkeley: Golden Bear Center • $595

Clinical Case Seminar in Loss and Grief

1.2 ceu • 12 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in the Study of Loss and Grief

This seminar, an integral part of the Professional Program in the Study of Loss and Grief, offers you the opportunity to apply the learning acquired in other courses and to increase your understanding of your own counseling style and skills. Using case presentations, you enhance your intervention skills and expand your ability to work with people experiencing loss and grief.

Prerequisites: Completion of at least three workshops in the Professional Program in the Study of Loss and Grief or consent of instructor

EDP 406462
Erika Maslan, M.A., Ph.D., MFT
2 meetings
Saturday–Sunday, 9:30 am–4:30 pm
May 14 and 15
Berkeley: Golden Bear Center • $305

Cross-Cultural Aspects of Loss and Grief

1.2 ceu • 12 hours CE credit: BRN, LCSW/MFT, and psychologists
An elective in the Professional Program in the Study of Loss and Grief

This workshop examines the ways in which cultural factors shape experiences of grief. Through lecture, use of expressive arts, and experiential exercises, you gain a better understanding of how ethnicity influences your own world views as well as those of your clients. Historical factors, experiences with racism and oppression, and the concept of ethnocentrism are explored as they apply to the issues of culturally appropriate mores and customs.

Guest lecturers: Roberto Almanzan, M.S.

EDP 406322
Claire Chow, M.A., MFCC
2 meetings
Saturday–Sunday, 9 am–4 pm
April 2 and 3
Berkeley: Golden Bear Center • $320

An Experiential Introduction to Art Therapy

Learn innovative, classic, and highly useful methods of engaging clients in personal and group expression of feelings, traumas, problems, insecurities, and other states of the human condition.

For course schedule, see p. 30.

Professional Program in The Study of Loss and Grief

If you are a professional who works with people who have experienced loss and grief and you seek to advance your learning in this specialized area of practice, the Professional Program in the Study of Loss and Grief is designed for you. Gain an understanding of current issues in the field of loss and grief counseling, and increase your ability to make assessments and informed referrals. The program includes a three-day introductory institute: the Clinical Case Seminar in Loss and Grief; and a series of advanced workshops on topics such as children and families, spirituality, violence and healing, cross-cultural aspects of loss and grief, and somatics.

These workshops are not recommended for the newly bereaved.

Curriculum Requirements
The curriculum consists of 2 required workshops and 34 hours of electives for a total of 6.4 ceu (64 hours of instruction).

Required Workshops
• Introduction to Loss and Grief Issues: Refreshing Old Skills, Learning New Skills (offered spring term)
• Clinical Case Seminar in Loss and Grief (offered spring term)

Electives Available This Term
• An Experiential Introduction to Art Therapy
• Cross-Cultural Aspects of Loss and Grief
• Post-Traumatic Stress Disorder: Assessment and Treatment

Learn More and View the Flyer
extension.berkeley.edu/spos/loss.html
(510) 643-3883
counspsych@unex.berkeley.edu

Enroll using EDP 402231
Eating and Weight Disorders

NEW THIS TERM
Assessing Levels of Care and the Use of Family Therapy in the Treatment of Eating Disorders

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists

When a patient with an eating disorder presents in an outpatient setting, the clinician needs to know how to assess the appropriate level of care needed by the patient. Get an overview of the levels of care available and clarify admission and discharge criteria at each level. Examine selected modalities of psychotherapy successful in the treatment of eating disorders—including the Maudsley Method and Family Systems approach—with an emphasis on the role of family therapy.

EDP 406207
Jacquelyn Holmes, M.Ed., MFT
1 meeting
Saturday, 9 am–4 pm
February 26
Berkeley: Golden Bear Center • $195

NEW THIS TERM
Nutrition and Eating and Weight Disorders

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists

Gain an understanding of the role that hunger and satiety cues have on the development and continuation of eating disorders, and learn to identify eating behaviors on the compulsive-eating/intuitive-eating spectrum. After attending this workshop, you should have a good understanding of the physiology of digestion and absorption of nutrients and be able to identify both macronutrients and micronutrients and their importance to the body.

EDP 426049
Sandi Liddicoat, B.S., RD
1 meeting
Saturday, 9 am–4 pm
April 30
Berkeley Campus: See Web for updates • $195

Professional Program in Eating and Weight Disorders

The Professional Program in Eating and Weight Disorders offers mental health clinicians and other health care professionals a series of CEU workshops aimed at improving assessment, diagnostic, and treatment skills in this growing field. In addition to learning different approaches to treating a range of eating disorders—including anorexia, bulimia, and binge eating—you gain a better understanding of prevention approaches, nutritional issues, and the psychology of weight disorders. Program electives focus on working with special populations such as teens, men, women, athletes, and others.

Curriculum Requirements

The curriculum consists of 5 required courses and 1 elective (36 hours of instruction).

Required Courses

• The Psychology of Weight Reduction: Eating, Exercise, and Body Image (offered summer and fall terms)
• Assessment, Etiology, and Diagnosis of Eating Disorders (offered fall term)
• Nutrition and Eating and Weight Disorders (offered spring term)
• Assessing Levels of Care and the Use of Family Therapy in the Treatment of Eating Disorders (offered spring term)
• Cognitive-Behavioral and Psychodynamic Approaches to the Treatment of Eating and Weight Disorders (offered future term)

Learn More and View the Flyer
extension.berkeley.edu/spos/weight.html
(510) 643-3883
counspsych@unex.berkeley.edu

Enroll using EDP 402412
Trauma-Informed Interventions

Overview of Trauma-Informed Assessment and Intervention
1.2 ceu • 12 hours CE credit: BRN, LCSW/MFT, and psychologists
A requirement in the Professional Program in Trauma-Informed Interventions
Learn how trauma is defined socially, culturally, and clinically, as well as how to assess and identify trauma histories in your clients. Examine strategies to clinically explore these histories in healing ways with your clients, including specific interventions you may use in supporting clients in the clinical hour and managing your own feelings as you hear stories of trauma from your clients. You learn helpful self-care strategies for clients with post-traumatic stress disorder (PTSD), as well as psycho-educational materials that can help support clients to begin to reframe their trauma histories and start along the path to healing. Teaching techniques include large and small group discussions, exploration of vignettes, and a guest speaker.

EDP 406264
Rick Nizzardini, J.D., M.S.W.
2 meetings
Saturday–Sunday, 9 am–4 pm
March 12–13
Berkeley: Golden Bear Center • $295

Neurobiology of Complex Trauma
0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists
A requirement in the Professional Program in Trauma-Informed Interventions
Learn how complex trauma (repeated trauma) affects the chemistry, functioning, and anatomy of the brain. You study these effects in the context of attachment, affect regulation, and normative brain development, as well as how trauma disrupts each of these. You also examine some of the trauma symptomology/presentations that arise from these disruptions. Finally, you review a range of interventions that can help impact the neurophysiological effects of trauma. Plan to practice these interventions in the workshop. Teaching methods include lecture, case presentations, modeling, and experiential exercises.

EDP 426239
Stefanie Smith, Ph.D.
1 meeting
Saturday, 9 am–4 pm
April 16
San Francisco: Downtown Center • $195

Treatment of the Traumatized Child
0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, and psychologists
An elective in the professional programs in Child and Adolescent Treatment and in Trauma-Informed Interventions
Examine the more common forms of trauma seen in psychotherapy, such as family violence and child abuse, in this advanced workshop. You study various interventions and treatment methodologies that can be used with children and briefly review how trauma affects a child at various developmental stages. You also study the impact of working with victims of childhood trauma, including secondary traumatization, countertransference, and self-care. Designed for the clinician with at least two years of experience working therapeutically or clinically with children and adolescents, you should be prepared to give a 10-minute presentation of a case with specific questions by the end of the course.

EDP 416099
Julie Robbins, M.S.W., LCSW
1 meeting
Friday, 9 am–5 pm
March 25
San Francisco: Downtown Center • $215

From Worry to Panic: Phobias, GAD, and Panic Disorders
Understand key elements of each diagnosis for panic disorders, generalized anxiety disorder, and phobias, and thoroughly review treatment strategies.

For course schedule, see p. 34.

Post-Traumatic Stress Disorder: Assessment and Treatment
Gain a thorough understanding of the DSM-5 diagnostic criteria for PTSD, recognize clinical manifestations of the disorder, and review considerations for treatment, including psychotherapy and medications.

For course schedule, see p. 34.

Professional Program in Trauma-Informed Interventions

Researchers have documented the prevalence of trauma in the vast majority of public-sector clients. Programs and systems that are seeking to integrate trauma-informed interventions include mental health, substance abuse, criminal justice, victim assistance, and child welfare. Post-traumatic stress disorders and other trauma-related disorders and symptoms are increasing in the population of war veterans and those who have been exposed to other forms of violence in urban and domestic settings. With the innovative Professional Program in Trauma-Informed Interventions, you learn to serve your clients better—and improve your practice—through evidence-based assessment and treatment models developed for trauma victims.

Curriculum Requirements
The curriculum consists of 3 required workshops and 3 electives for a total of 4.2 ceu (42 hours of instruction).

Required Courses
• Overview of Trauma-Informed Assessment and Intervention (offered spring term)
• Neurobiology of Complex Trauma (offered spring term)
• Trauma and Grief: Impacts on Clients and the Clinician (offered summer and fall terms)

Electives Available This Term
• Post-Traumatic Stress Disorder: Assessment and Treatment
• Treatment of the Traumatized Child

Learn More and View the Flyer
extension.berkeley.edu/spos/trauma.html
(510) 643-3883
counspsych@unex.berkeley.edu

Enroll using EDP 402355
The Treatment of Anxiety Disorders

From Worry to Panic: Phobias, GAD, and Panic Disorders

0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in the Treatment of Anxiety Disorders

Panic disorder, generalized anxiety disorder, and the phobias are believed to affect some 30 million Americans. All of these disorders can severely limit someone’s daily functioning and contribute to considerable dysfunction. These disorders, however, are effectively treated with the use of very specific cognitive-behavioral therapy techniques and medications. The focus of this class will be on understanding key elements of each diagnosis, and thoroughly reviewing treatment strategies.

EDP 416123
Daniel N. Weiner, Ph.D.
1 meeting
Saturday, 9 am–5 pm
January 29
Berkeley: Golden Bear Center • $205

Post-Traumatic Stress Disorder: Assessment and Treatment

0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in the Treatment of Anxiety Disorders

It is estimated that as many as 7.7 million adults may have PTSD, and it can occur at any age, including childhood. The primary purpose of this workshop is to define PTSD, identify clinical manifestations, and highlight treatment considerations. Participants gain a thorough understanding of the DSM-5 diagnostic criteria for PTSD, recognize clinical manifestations of the disorder, and review considerations for treatment, including psychotherapy and medications.

EDP 416081
Mark Balabanis, Ph.D.
1 meeting
Saturday, 9 am–5 pm
April 2
Berkeley Campus: See Web for updates • $205

Aging and Mental Health

The Role of the Mental Health Professional in Long-Term Care

0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, and psychologists

An elective in the Professional Program in Aging and Mental Health

Enhance your ability to work with the elderly in a range of long-term care settings, and learn about the various levels of care, who pays, and alternatives to placement. You also examine how to work with the elderly, who are adjusting to living in an institutional setting, and their families, who are considering long-term care. You also focus on how you can help address the behavioral and medication issues that are faced by the elderly in long-term care and how to approach the challenges and opportunities (for example, working with teams, dealing with family members, advocating for standards of care, getting paid) of being an effective mental health professional in these settings.

EDP 406355
Shaye Starkey, LCSW
1 meeting
Saturday, 9 am–5 pm
April 30
Berkeley: Golden Bear Center • $195

Alzheimer’s Disease and Memory Loss: Working with Families

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists

An elective in the Professional Program in Aging and Mental Health

Alzheimer’s disease is the most common cause of dementia in older adults. Although treatment with medications and behavioral interventions may help prevent some symptoms from becoming worse for a limited time, research shows that effective care and support can help improve the quality of life for individuals and their caregivers. Learn the causes, clinical presentation, prognosis, and treatment of Alzheimer’s disease and mild cognitive impairment. You also learn about the assessment and diagnosis of Alzheimer’s disease and how to identify the needs of families that have loved ones with the disease.

Guest presenters: Craig Hou, M.D., and Jennifer Merriëes, RN, M.S.

EDP 416370
Julene Johnson, Ph.D.
1 meeting
Saturday, 10 am–5 pm
February 5
San Francisco: Downtown Center • $195
NEW THIS TERM

Psychotherapy with the Elderly: A Psychodynamic and Humanistic Perspective

0.6 ceu • 6 hours CE credit: BRN, MFT/LCSW and psychologists

An elective in the Professional Program in Aging and Mental Health

Explore how psychodynamic and humanistic psychotherapy can be useful in working with an elderly or geriatric population. Examine the psychotherapeutic themes of presence, spirituality, and meaning—and how they are important in working with the geriatric population—using case studies. You are encouraged to bring in your own case material.

EDP 406454
Rochelle Suri, Ph.D.
1 meeting
Saturday, 9 am–4 pm
February 12
San Francisco: Downtown Center • $195

Treating Depression and Chemical Dependence in Older Adults

Depression, a common mental health problem in older adults, is often unrecognized, untreated, and mistakenly viewed as a natural part of aging.

For course schedule, see p. 39.

The Treatment of Mood Disorders

Evidence-Based Psychotherapy for Mood Disorders

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in the Treatment of Mood Disorders

This daylong workshop reviews best practices for the treatment of mood disorders in adults, with particular emphasis on evidence-based psychosocial treatments. The workshop also focuses on specific evidence-based treatment for unipolar and bipolar depression in adults, as well as cognitive-behavior therapy.

EDP 416420
Robert Reiser, Ph.D.
1 meeting
Saturday, 9 am–4 pm
February 26
Berkeley: Golden Bear Center • $195

Treating Depression and Chemical Dependence in Older Adults

Depression, a common mental health problem in older adults, is often unrecognized, untreated, and mistakenly viewed as a natural part of aging.

For course schedule, see p. 39.

Professional Program in Aging and Mental Health

As the U.S. population ages, the number of age-related morbidities will increase and the need for knowledgeable health, social service, and mental health professionals will continue to grow. The Professional Program in Aging and Mental Health includes a series of continuing education unit (CEU) workshops offered by leading researchers and clinicians in the Bay Area. Workshops in this program provide an update on aging and mental health research and counseling tools used in a variety of settings. Courses are aimed at helping professionals like you stay current in this field and become better clinicians in your work with older adults and their families.

Curriculum Requirements

The curriculum consists of 2 required workshops and 36 hours of electives for a total of 6.0 ceu (60 hours of instruction).

Required Workshops

• Assessment and Treatment of Mental Health in Older Adults (offered fall term)
• Clinical Case Seminar on Aging and Mental Health (offered summer term)

Electives Available This Term

• Alzheimer’s Disease and Memory Loss: Working with Families
• Psychoterpapy with the Elderly: A Psychodynamic and Humanistic Perspective
• The Role of the Mental Health Professional in Long-Term Care
• Treating Depression and Chemical Dependence in Older Adults

Learn More and View the Flyer
extension.berkeley.edu/spos/aging.html
(510) 643-3883
counspsych@unex.berkeley.edu
Enroll using EDP 402321

Professional Program in The Treatment of Mood Disorders

Mood disorders are the most prevalent psychiatric condition, accounting for 25 percent of patients in psychiatric inpatient settings, 65 percent of psychiatric outpatients, and as much as 10 percent of all patients seen in nonpsychiatric medical settings. The Professional Program in the Treatment of Mood Disorders is a series of workshops that review state-of-the-art assessment and treatment of this clinical problem. Gain an understanding of current issues in the field of mood disorders, and make assessments, informed referrals, and other professional recommendations.

Curriculum Requirements

The curriculum consists of 2 required workshops and 3 electives for a total of 3.0 ceu (30 hours of instruction). At least one elective must focus on a specific population (such as, adolescents, older adults, or women).

Required Workshops

• Diagnosis and Treatment of Bipolar Mood Disorders (offered fall term)
• Evidence-Based Psychotherapy for Mood Disorders (offered spring term)

Electives Available This Term

• Treating Depression and Chemical Dependence in Older Adults

Learn More and View the Flyer
extension.berkeley.edu/spos/mood.html
(510) 643-3883
counspsych@unex.berkeley.edu
Enroll using EDP 402272
**Child and Adolescent Treatment**

**Treatments That Work: Evidence-Based Psychotherapy for Children and Adolescents**

1.2 ceu • 12 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in Child and Adolescent Treatment

The prevalence of psychiatric disorders in school-age children has been estimated to be 20 to 30 percent and growing. Many of these psychiatric disorders do not remit spontaneously and appear to become more complex and treatment-resistant with time, underscoring the importance of training clinicians in treatments of established efficacy. This two-day workshop presents guidelines for conducting evidence-based psychotherapy and reviews psychosocial treatments proven to be efficacious for the most common childhood and adolescent disorders. For each condition, the efficacy of various treatments, the primary treatment targets and components, and a typical treatment plan are presented. The workshop emphasizes treatments for anxiety and mood disorders, as clinicians commonly encounter these conditions in typical outpatient psychotherapy.

**EDP 406363**

Michael A. Tompkins, Ph.D.,
Extension Honored Instructor

2 meetings
Saturdays, 9 am–4 pm
March 5 and March 19
Berkeley: Golden Bear Center • $320

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**Treatment of the Traumatized Child**

Examine the more common forms of trauma seen in psychotherapy, such as family violence and child abuse, in this advanced workshop.

For course schedule, see p. 33.

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**Curriculum Requirements**

The curriculum consists of 2 required workshops and 48 hours of electives for a total of 7.2 ceu (72 hours of instruction).

You may specialize in age-specific practice, selected methods of intervention, or common presenting problems. You are strongly encouraged to take at least one workshop on psychological testing or cross-cultural practice with children and families.

**Required Workshops**

• Psychiatric Disorders in Children and Adolescents: Diagnostic Evaluation and Treatment (offered fall term)
• Treatments That Work: Evidence-Based Psychotherapy for Children and Adolescents (offered spring term)

**Elective Available This Term**

• Treatment of the Traumatized Child

**Learn More and View the Flyer**
extension.berkeley.edu/spos/child.html
(510) 643-3883
counpsych@unex.berkeley.edu

Enroll using EDP 402206
Neuropsychological Assessment

Advances in Human Brain Science for Clinicians

0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in Neuropsychological Assessment

Through discussion of the structure and function of the human nervous system, brain-imaging technologies, advances in understanding sensory perception, and the neuroscience of the mind, you gain an intuitive appreciation for how the brain operates and how it changes as a result of experience. This one-day class provides a solid foundation for further learning about neuropsychology, enables clinicians to incorporate the latest neuroscientific knowledge into their practice, and presents the latest research on the mind-body connection.

EDP 426056
David Presti, Ph.D. (license PSY12835),
Extension Honored Instructor

1 meeting
Friday, 9 am–5 pm
April 15
Berkeley: Golden Bear Center • $215

Neuropsychological Assessment, Rorschach, and MMPI-2: An Update for Advanced Clinical Practice

1.3 ceu • 13 hours CE credit: BRN, LCSW/MFT, and psychologists

A requirement in the Professional Program in Neuropsychological Assessment

The psychological assessment field is quickly changing, and, with growing forensic demands, clinicians are expected to keep current. This course offers an advanced, up-to-date review of assessment methods. You examine specific strengths and limitations of each procedure to enhance your ability to select tests, as well as critically evaluate assessments by others. The issue of malingering, or symptom exaggerations in assessments, is explored. You examine the implications of restandardization of the MMPI for interpreting the basic MMPI-2 profile and develop an understanding of the new MMPI-2 validity scales. You also learn how to use the new structural variables, coding, and interpretation and how to integrate Rorschach findings into treatment-planning recommendations. Instructors are experienced clinicians and draw extensively on current research and case material.

Prerequisite: Previous Rorschach/MMPI experience

EDP 406348
Philip Erdberg, Ph.D.; Roger Greene, Ph.D.; and William Lynch, Ph.D.

2 meetings
Saturdays, 9 am–4 pm
April 2 and April 9
Berkeley: Golden Bear Center • $305

Neurobiology of Complex Trauma

Learn how complex trauma (repeated trauma) affects the chemistry, functioning, and anatomy of the brain.

For course schedule, see p. 33.

Introduction to Neurobiology

This introductory course is designed to provide a general understanding of the nervous system, including how it functions; how it develops; and how it changes with learning and memory, from the level of molecules to simple circuits to higher brain functions.

For course schedule, see p. 156.

Human brain science research is a growing area that has implications for clinical assessment and intervention with a variety of populations. Workshops in the UC Berkeley Extension Professional Program in Neuropsychological Assessment provide an update on brain research and neuropsychological assessment tools used in diverse settings. Courses are aimed at helping licensed health and mental health professionals stay current in the field of neuropsychology, become better clinicians in their work with children and adults, and make better assessments and informed referrals. Introductory and more advanced workshops are offered.

Note: Because clinical neuropsychology is a specialized area of practice requiring doctoral and postdoctoral training, this program does not prepare clinicians to practice neuropsychology or use neuropsychological instruments.

Curriculum Requirements

The curriculum consists of 3 required workshops and 1 elective for a total of 2.8 ceu (28 hours of instruction).

Required Courses

• Advances in Human Brain Science for Clinicians (offered spring and fall terms)
• Introduction to Neuropsychological Assessment (offered fall term)
• Neuropsychological Assessment, Rorschach, and MMPI-2: An Update for Advanced Clinical Practice (offered spring term)

Learn More and View the Flyer
extension.berkeley.edu/spos/neuro.html
(510) 643-3883
counspsych@unex.berkeley.edu

Enroll using EDP 402214
Licensing/Relicensing Workshops and Courses

Child Abuse and Incest: Assessment, Reporting, and Treatment
0.7 ceu • 7 hours CE credit: BRN
Meets the requirement of training in child abuse and incest assessment, reporting, and treatment for licensure in California by the Board of Psychology or the Board of Behavioral Sciences
Learn to place child abuse and neglect within its historical and cultural context, then proceed to a review of the requirements of California child-abuse reporting laws. Learn how to identify the signs of abuse and neglect. You also learn guidelines for assessment and discuss the special challenges of interviewing children.
EDP 416107
Joie Robbins, M.S.W., LCSW
1 meeting
Friday, 9 am–5 pm
February 18
San Francisco: Art and Design Center • $215

Assessment and Treatment of Alcohol and Drug Problems
X437 • 1 semester unit in Public Health
15 hours CE credit: BRN, LCSW/MFT, and psychologists
Meets the requirement of training in assessment and treatment of chemical dependency for licensure and relicensure in California by the Board of Psychology or the Board of Behavioral Sciences
Mental health and health professionals who want to increase their understanding of chemical dependency and its treatment can benefit from this course. It presents an overview of the diagnosis and treatment of chemically dependent clients, the basic physical effects and pharmacologic actions of commonly abused substances, and the changing patterns of assessment and treatment of chemical dependency. Emphasis is on providing professional practitioners with a model for understanding chemical addiction and its treatment, especially as it differs from other psychological approaches. Note: You are expected to visit two self-help meetings and do a brief writeup. Reader is included in course fee. Enrollment is limited.
EDP 406520
Joan Ellen Zweben, Ph.D. (license PSY4103)
2 meetings
Fridays, 9 am–5 pm
February 4 and February 18
Berkeley: Golden Bear Center • $315

Addictive Disorders I: Assessment and Referral
0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, and psychologists
Get an overview of historical and contemporary perspectives on alcohol and drug abuse. Basic principles of diagnosis and assessment are presented with a focus on detection of alcohol and drug problems in patients who appear in a variety of health care systems, including private practice. Cover the numerous possible relationships between addictive behavior and psychopathology. You also learn how to recognize serious health and life-threatening medical complications and how to address them. Reader is included in course fee.
EDP 406538
Joan Ellen Zweben, Ph.D. (license PSY4103)
1 meeting
Friday, 9 am–5 pm
February 4
Berkeley: Golden Bear Center • $195

Human Sexuality: Prelicensure Workshop
1.0 ceu • 10 hours CE credit: BRN
Meets the requirement of training in human sexuality for licensure in California by the Board of Psychology or the Board of Behavioral Sciences
Learn the information required to meet licensing requirements, and deepen and enrich your understanding of the challenges both you and your clients confront. Explore the relationship between intimacy and sexuality, with an emphasis on the various ways people experience, express, and draw meaning from their sexuality.
EDP 406272
Rick Nizzardini, J.D., M.S.W.
2 meetings
Saturday, 9 am–4 pm
February 5 (also Sunday, February 6, 9 am–1 pm)
Berkeley: Golden Bear Center • $285

Licensure Workshop on Aging and Long-Term Care
0.3 ceu • 3 hours CE credit: BRN, LCSW/MFT, and psychologists
Satisfies the Board of Psychology and the Board of Behavioral Sciences three-hour requirement for training in aging and long-term care
Get an overview of some of the most important aspects of geriatric neuropsychology and geropsychology. This workshop exceeds the relicensure requirement for a course in the biological, psychological, and social aspects of aging and long-term care.
EDP 406330
Melinda Ginne, Ph.D. (license PSY15272)
1 meeting
Saturday, 9 am–12:30 pm
January 22
Berkeley: Golden Bear Center • $95

Ethical Decision Making in Complex Cases
0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists
Satisfies the law and ethics course requirement for psychologists, MFTs, and LCSWs that is required during each license renewal cycle
Clinical dilemmas can present mental health professionals with circumstances in which they may have no clear legal, ethical, or policy directives to guide them. This highly interactive workshop, designed by the American Psychological Association, teaches you a model to use in making sound, ethical decisions and provides practice in using the model with difficult cases.
Sec. 1 EDP 846170
Joanie Gillispie, Ph.D.
January 18–February 1
Online • $219
Sec. 2 EDP 846212
Joanie Gillispie, Ph.D.
February 15–March 1
Online • $219
Sec. 3 EDP 846220
Joanie Gillispie, Ph.D.
March 15–March 29
Online • $219
Sec. 4 EDP 406314
David Jull-Patterson, Ph.D. (license PSY1476)
1 meeting
Saturday, 9 am–4 pm
April 30
Berkeley: Golden Bear Center • $195
### Electives

#### NEW THIS TERM

**Intimate Partner Violence and Substance Use, Abuse, and Addiction**

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, CAADAC, and psychologists

An elective in the Certificate Program in Alcohol and Drug Abuse Studies

Intimate partner violence (IPV) is frequently found in conjunction with substance use, abuse, and addiction, as well as with other behavioral addictions, such as gambling, overeating, excessive spending, sex addiction, and more. Get an overview of co-occurring intimate partner violence and addictions, and review state-of-the-art approaches to effective interventions. This workshop is intended for all levels of counseling, psychological, social work, legal, medical, and other professionals who work with domestic violence, families, addictions, law enforcement, and related fields.

**EDP 406199**

Angela Browne-Miller, Ph.D.

1 meeting

Saturday, 10 am–5 pm

April 9

Berkeley: Golden Bear Center • $195

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#### NEW THIS TERM

**Treating Depression and Chemical Dependence in Older Adults**

0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, CAADAC, and psychologists

An elective in the Certificate Program in Alcohol and Drug Abuse Studies

Depression, a common mental health problem in older adults, is often unrecognized, untreated, and mistakenly viewed as a natural part of aging. Untreated depression and chemical dependence in older adults creates vulnerability to health deterioration, decreased quality of life, and suicide. Designed for substance abuse counselors and psychotherapists, this workshop reviews the basic signs, the common biases and misconceptions of patients and service providers, assessment and screening tools, and engagement and treatment strategies.

**EDP 426346**

Susmita Shah, MFT

1 meeting

Saturday, 10 am–5 pm

March 5

San Francisco: Art and Design Center • $195

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**AA and Other Mutual Help Groups: How They Work**

0.7 ceu • 7 hours CE credit: BRN, LCSW/MFT, CAADAC, and psychologists

An elective in the Certificate Program in Alcohol and Drug Abuse Studies

Alcoholics Anonymous (AA) is a mutual-help organization with approximately 2 million members and 99,000 groups in more than 140 countries. Among the individuals who seek help for alcohol problems in the United States, more than half go to AA. This workshop reviews the research evidence on the role of AA or Narcotics Anonymous (NA) in achieving and maintaining recovery from substance abuse. The workshop also covers the role of spirituality in recovery and examines who benefits most from AA and NA facilitation. The course is intended for addictions counselors and allied health and social service professionals working in the addictions field.

**EDP 426312**

Sarah Ellen Zemore, Ph.D.

1 meeting

Friday, 9 am–5 pm

April 29

Berkeley: Golden Bear Center • $195

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Level I

Behavioral Pharmacology and Biomedical Foundations of Chemical Dependency
X126 • 2 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

For centuries, chemical dependency has been seen as a character flaw rather than a medical condition. Research, however, shows a strong biological basis for addiction. Examine the genetic predisposition to alcoholism, the classification of drugs based on their effect on behavior, the metabolism of drugs, and the treatment of withdrawal symptoms. Other topics include neurotransmitter theory and drug-related depression, suicide, and violence. You study in-depth how to integrate this complex medical model with 12-step and other approaches to recovery. You also review basic neuroanatomy and physiology.

EDP 406140
Mark W. Stanford, Ph.D., Extension Honored Instructor
10 meetings
Thursdays, 6:30–9:30 pm
January 13–March 17
San Francisco: Art and Design Center • $375

Introduction to Counseling Techniques in Chemical Dependency
X129 • 1 semester unit in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

This course is designed to introduce paraprofessionals to the basic concepts and techniques of counseling in the field of substance abuse. Explore the characteristics of an effective counselor, the counselor role, ways to recognize dysfunctional patterns of communication, and ethical considerations in counseling. Practice and develop skills in active listening, building trust, reflecting feelings and content, and using confrontation.

EDP 406157
Jimmie R. Turner, Ph.D.
4 meetings
Wednesdays, 6:30–9:30 pm
January 12–January 26
(Also Saturday, January 22, 9 am–4 pm)
Berkeley: Golden Bear Center • $275

Cultural, Social, and Historical Overview of Alcohol- and Drug-Related Problems
X128 • 2 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

Political and social contexts shape society’s views about and responses to drug use. This course explores the cultural and historical roots of evolving alcohol and drug policy in American society. Traditional substance-abuse service systems are investigated, as are critiques of the war on drugs and pressures to reform and innovate.

Guest speaker: Tracey Lee, founding member of Recovery Advocates for Treatment

EDP 406165
Kevin McGirr, M.A., RN
10 meetings
Mondays, 6:30–9:30 pm
January 24–April 18 (no meeting February 21 and March 14 and 21)
San Francisco: Downtown Center • $375

Psychological Foundations of Chemical Dependency
X127 • 2 semester units in Public Health
This course will be offered in summer 2011.

Level II

Addressing Co-Occurring Disorders in Addictions Counseling
X143 • 1 semester unit in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

The occurrence of mental health disorders is the norm in addictions counseling, and the integration of mental health and substance treatment is critical. Focus on what you need to know to recognize the signs of commonly co-occurring disorders. Learn how to tailor substance abuse interventions to clients with different types of mental health problems, and recognize when to refer clients elsewhere. This course also examines research-based interventions such as motivational interviewing, social skills training, grounding, and cognitive behavioral therapy.

EDP 406298
Joshua Kirsch, M.S.W.
2 meetings
Fridays, 3:30–4:30 pm
March 4 and March 11
Berkeley: Golden Bear Center • $275

Continuing Care and Case Coordination in Chemical Dependency
X134 • 2 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

This course provides an overview of continuing care, case coordination principles, and the practices used to establish and maintain recovery and prevent relapse. The purpose of the course is to expose you to different ways of thinking about the recovery and potential relapse process for chemically dependent clients, as well as to identify effective treatment and case coordination approaches for these clients. Topics aim to serve a diverse population.

EDP 406306
Paul Bell-Tull, LCSW
8 meetings
Thursdays, 6:30–9:30 pm
January 20–March 3 (also Saturdays, February 12 and March 12, 9:30 am–3:30 pm; no meeting February 10)
Berkeley Campus: 175 Barrows Hall • $375
Certificate Program in Alcohol and Drug Abuse Studies

Making a difference in the lives of people with serious alcohol- and drug-related problems is a driving motivator behind addictions counseling. Rigorous, up-to-date, and thorough training will increase the quality and effectiveness of treatment services in the addictions field. Developed by UC Berkeley Extension in association with the UC Berkeley School of Public Health, the Certificate Program in Alcohol and Drug Abuse Studies features a curriculum based on a developmental sequence of study designed to challenge your current beliefs about drug and alcohol abuse, increase your knowledge, and augment your skills. Instructors have extensive training and experience and represent a variety of professions and backgrounds.

Curriculum Requirements
The curriculum consists of 14 required courses (21–22 semester units) and 20 hours of electives (2.0 ceu) for a total of 340 hours of instruction. If you choose the CAADAC field seminar option, the program has a total of 355 hours of instruction.

Required Courses

**Level I**
- Behavioral Pharmacology and Biomedical Foundations of Chemical Dependency X126 (offered every term)
- Psychological Foundations of Chemical Dependency X127 (offered summer term)
- Cultural, Social, and Historical Overview of Alcohol- and Drug-Related Problems X128 (offered spring and fall terms)
- Introduction to Counseling Techniques in Chemical Dependency X129 (offered every term)

**Level II**
- Diagnosis and Assessment in Chemical Dependency X132 (offered spring term)
- Continuing Care and Case Coordination in Chemical Dependency X134 (offered spring and fall terms)
- Environmental Strategies for the Prevention of Alcohol and Drug Problems X151 (offered summer and fall terms)
- Family Recovery in Chemical Dependency X116 (offered summer and fall terms)
- Legal and Ethical Aspects of Chemical Dependency Treatment X135 (offered spring, summer, and fall terms)
- Group Process and Practice with Chemically Dependent Populations X144 (offered spring and summer terms)
- Addressing Co-Occurring Disorders in Addictions Counseling XH13 (offered every term)
- Career Preparation and Self-Care in Addictions Counseling (offered spring and fall terms)

**Level III**
- Counseling Interventions in Chemical Dependency X133 (offered every term)
- Field Experience in Chemical Dependency X109 (offered spring and fall terms) OR Field Experience in Chemical Dependency—CAADAC Option X159 (with a 255-hour CAADAC internship, offered spring and fall terms)

**Electives**
See extension.berkeley.edu/cert/alcohol.html or p. 39 for a list of available electives this term.

Learn More and View the Brochure
extension.berkeley.edu/cert/alcohol.html
(510) 643-6901
alcdrug@unex.berkeley.edu
Enroll using EDP 402222
Group Process and Practice with Chemically Dependent Populations
X144 • 1 semester unit in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

Group interventions continue to be a major strategy to treat addictions. They are increasingly considered a cost-effective intervention, based on a growing body of knowledge about best practices. Gain an understanding of group process and dynamics in treating chemically dependent adults. In addition to the theory behind group work, you cover how to select patients; how to be a group leader; and methods appropriate to two types of groups: the transitional (open) group and the closed group. Structured time is given to practice in small groups.

EDP 406173
Anthony Scuderi, Psy.D., D.Min., CACD, CCS
5 meetings
Mondays, 6:30–9:30 pm
April 25–May 23
San Francisco: Art and Design Center • $285

Diagnosis and Assessment in Chemical Dependency
X132 • 2 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

This course identifies and defines an addiction syndrome; reviews various physiological, psychological, and social variables in making a diagnosis; and discusses the legal and financial constraints in making referrals. Topics include a review of treatment alternatives and their underlying philosophies, how to match a client with the most appropriate alternative, and how to develop an effective treatment and referral plan. The use of the DSM and difficulties in dual diagnosis receive special attention.

EDP 406553
Steven Allen, Ph.D.
10 meetings
Tuesdays, 6:30–9:30 pm
March 15–May 17
Berkeley Campus: 174 Barrows Hall • $385

Legal and Ethical Aspects of Chemical Dependency Treatment
X135 • 1 semester unit in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

Learn to examine various ethical and legal issues that are designed to increase the standard of care for the client. For instance, you examine ethical and legal issues such as competence, consultations with colleagues, documentation requirements, consent to treatment, client confidentiality (including the Code of Federal Regulations), suicidal and homicidal clients, child and elder abuse reporting requirements, and civil commitment procedures.

EDP 426395
Susmita Shah, MFT
5 meetings
Thursdays, 6:30–9:30 pm
March 24–April 21
San Francisco: Downtown Center • $285

Career Preparation and Self-Care in Addictions Counseling
0.2 ceu • 2 hours CE credit
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

Get a brief overview of current workforce issues and trends, and discover some tips on how to prepare for your career as an addictions counselor. Obtain individual advice on completing the program and preparing for the 255-hour (or 36-hour) internship as part of the Level III Field Experience in Chemical Dependency workshop. This workshop is for students who plan to complete the Certificate Program in Alcohol and Drug Abuse Studies and have taken all Level I courses.

EDP 426387
Perri Franskoviak, Ph.D.
1 meeting
Wednesday, 6:30–8:30 pm
January 12
Berkeley: Golden Bear Center • $65

Family Recovery in Chemical Dependency
X116 • 1 semester unit in Public Health
This course will be offered in summer 2011.

Environmental Strategies for the Prevention of Alcohol and Drug Problems
X151 • 1 semester unit in Public Health
This course will be offered in summer 2011.

Level III

Counseling Interventions in Chemical Dependency
X133 • 3 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

Get an overview of the basic strategies and skills needed for effective treatment of chemical dependency. Review approaches such as psychotherapy, self-help, 12-step programs, and family models in residential/nonresidential and drug-free settings. Other topics include using individual and group techniques, developing the most effective approach for a client's needs, and identifying the ways in which substance-abuse clients differ from mental-health clients. You also have an opportunity to practice and develop your skills.

Prerequisites: All Level I and II courses

EDP 406371
Cynthia Mitchell, Psy.D.
13 meetings
Mondays and Thursdays, 6:30–9:30 pm
January 31–March 14 (also Saturdays, February 26 and March 19, 9 am–4 pm; no meeting February 21 and 28)
Berkeley Campus: 2304 Tolman Hall • $695

Field Experience in Chemical Dependency
X109 • 2 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies

This field-study course provides an opportunity for candidates completing the Certificate Program in Alcohol and Drug Abuse Studies to apply what they have learned in an agency setting. Select a field placement in an agency of your choice, and spend a total of 36 hours at the placement completing a project or developing a product (noncounseling in nature) related to the agency's mission. In addition to the project, you complete a number of assignments designed to help you plan future employment and develop your ability to analyze and understand organizations and their impact on delivery of client services. The 30-hour classroom portion of the course provides a supportive setting for you to discuss, analyze, and solve problems arising from your field experience and project. Enrollment is limited to 15.

Prerequisite: Completion of all Level I and II courses in the Certificate Program in Alcohol and Drug Abuse Studies or consent of instructor

EDP 416073
Perri Franskoviak, Ph.D.
9 meetings
Wednesdays, 6:30–9:30 pm
February 23–April 13 (also Saturday, March 26, 9 am–4 pm)
Berkeley: Golden Bear Center • $560
Field Experience in Chemical Dependency—CAADAC Option
X159 • 3 semester units in Public Health
A requirement in the Certificate Program in Alcohol and Drug Abuse Studies
This course covers all the material in the 2-semester-unit version of Field Experience in Chemical Dependency but extends the coursework and requires 255 CAADAC-eligible internship hours. The instructor approves placement sites and student assignments based on CAADAC acceptability and an individualized assessment of student capabilities. (Please see course description for Field Experience in Chemical Dependency X109.)
Prerequisite: Completion of all Level I and II courses in the Certificate Program in Alcohol and Drug Abuse Studies or consent of instructor
EDP 416065
Perri Franskoviak, Ph.D.
13 meetings
Wednesdays, 6:30–9:30 pm
February 23–May 4 (also Saturdays, March 26 and April 16, 9 am–4 pm)
Berkeley: Golden Bear Center • $695

Public Health and Health Management

COURSE INFORMATION
(510) 643-6901
pubhealth@unex.berkeley.edu
extension.berkeley.edu/counseling

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Principles of Epidemiology
X186 • 2 semester units in Public Health
30 hours CE credit: BRN
Epidemiology is the study of the distribution of disease and health in human populations. Learn the basic principles of epidemiology, their application to specific public health situations, and criteria for critically evaluating epidemiology studies. You discuss epidemiological concepts and their application to sample problems. Topics include disease risk, methods of evaluating the causative factors of disease, and the assessment of epidemiological study designs and research activities. Note: Please bring a calculator to class. Enrollment is limited.
EDP 426361
Trisha Hue, M.P.H., Ph.D.
9 meetings
Wednesdays, 6–9 pm
January 11–March 15
San Francisco: Art and Design Center • $375

Current Issues and Careers in Public Health Practice
0.6 ceu • 6 hours CE credit
Designed for students and professionals who are working or considering working in the public health field in the United States, this course explores public health practice as a strategic response to pressing social, political, and health issues. You review the range of career choices available in this field and interact with a panel of public health professionals. You also review graduate-level training options in public health and the types of employment opportunities available.
EDP 406447
Bernard Griego, M.P.H.
2 meetings
Wednesdays, 6:30–9:30 pm
May 11 and May 18
Berkeley: Golden Bear Center • $185

Health Policy in the United States
X55 • 2 semester units in Public Health
Get an overview of the health care system with specific focus on past and current public policies that have shaped health care in the United States. In particular, you examine health policy, health services financing, and organization. Analyze current health policies and how these policies impact the cost, quality, and access to services to better understand and critique them from an informed perspective.
EDP 406181
Robin Flagg, M.P.H.
10 meetings
Tuesdays, 6:30–9:30 pm
January 11–March 15
Berkeley: Golden Bear Center • $375

Introduction to Health Economics
X52 • 2 semester units in Public Health
Get an introduction to the applications of economics to health care and medical care issues. Discuss the special features of medical care as a commodity; demand for health services; and the economic explanations for health care providers, insurance markets, and technology diffusion. You also study policy issues such as universal health insurance and international comparisons. The training helps you to form your own vision of the economics of health care as a health services manager, analyst, or civic leader.
Prerequisite: An undergraduate introductory economics course
EDP 406215
David Murray, M.Sc., MCRP
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
Berkeley Campus: 155 Barrows Hall • $375

General Nutrition
X18 • 3 semester units in Nutritional Sciences
Intended for students in health-related careers or those who want a better understanding of the subject, the course teaches you to critically examine many of the popular myths about nutrition and gain a foundation for making wise nutritional choices. Learn about dietary nutrients and toxicants and the role of nutrition in optimal health. Topics include macro- and micronutrient needs; how to determine individual caloric and nutrient needs; digestion and absorption; nutrient requirements in various stages of human development; and current food issues, including food safety.
A background in high school or introductory college-level chemistry, biology, or physiology is recommended but not required.
EDP 877530
Alanna Nimau Vigil, M.S., RD
Enroll anytime
Online, proctored final exam • $770

ENROLL NOW • VISIT EXTENSION.BERKELEY.EDU/ENROLL • CALL (510) 642-4111
**General Psychology**

**Course Information**

(510) 643-3683
counselpsych@unex.berkeley.edu
extension.berkeley.edu/counseling

**Online Course Information**

(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

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**Counseling and Psychotherapy as a Career Option**

1.8 ceu • 18 hours CE credit

Investigate the myriad training and licensing options available for mental health professionals. Designed to give you with information as well as a support group, the course covers topics ranging from comparison of the various licenses and financial realities to multicultural issues and theoretical orientations. Group discussions help you examine the realities of the profession. You also complete a personal inventory designed to aid your self-assessment for a career in mental health. *Enrollment is limited.*

**EDP 426353**

Alberto Richardson-Varona, Psy.D.

3 meetings

Friday and Saturday, 9:30 am–4:30 pm

March 18 and 19 (also Friday, March 25, 9:30 am–4 pm)

San Francisco: Art and Design Center • $385

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**Abnormal Psychology**

**X146** • 3 semester units in Psychology

45 hours CE credit: BRN

Designed for anyone interested in the way humans perceive and respond to experiences, and especially for people considering careers in psychology, this course helps you learn the dynamics and prevention of abnormal behavior, including neuroses, psychoses, character disorders, psychosomatic reactions, schizophrenia, and other abnormal personality patterns.

**Sec. 1 EDP 406512**

Instructor to be announced

11 meetings

Saturdays, 9 am–1 pm

February 12–April 30 (also Saturdays, May 7, 8:30 am–1:30 pm and May 14, 9 am–1 pm; no meeting February 19 and April 16 and 23)

Berkeley Campus: See Web for updates • $585

**Sec. 2 EDP 867564**

Darrel Dean Richards, Ph.D.

Enroll anytime

Online, proctored final exam • $730

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**Biological Psychology**

**X155** • 3 semester units in Psychology

Explore brain-behavior relationships with special emphasis on clinical examples. Study how the brain and nervous system produce the human range of feelings and behaviors: sensation, emotion, sleep and dreams, reproductive behavior, language, and memory. Clinical examples include depression, schizophrenia, eating disorders, sleep disorders, aggression, dyslexia, and amnesias. Beginning with the basic structure and function of the nervous system, you examine the organic bases of behavior.

**EDP 406405**

Nicola Wolfe, Ph.D.

15 meetings

Tuesdays, 6:30–9:30 pm

January 25–May 10 (no meeting April 19)

San Francisco: Downtown Center • $585

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**Introduction to Developmental Psychology**

**X140** • 3 semester units in Psychology

45 hours CE credit: BRN

In this survey course, study the life-span developmental approach to developmental psychology, including prenatal life development. Gain perspective on biological, physical, cognitive, emotional, language, sociocultural, and spiritual changes across the life span, from prenatal and birth through the major stages of childhood, adolescence, and adulthood. You study fundamental theories, perspectives, and critical thinking about historical and current arguments in the field. Course requirements include research projects and brief class presentations.

**EDP 406496**

Richard Sprott, Ph.D.

15 meetings

Tuesdays, 6:30–9:30 pm

January 25–May 10 (no meeting April 19)

Berkeley Campus: 116 Haviland Hall • $585

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**Theories of Personality**

**X175** • 3 semester units in Psychology

45 hours CE credit: BRN

Examine theories of personality development, structure, and functioning in this course. Learn key concepts in the field and increase your understanding of the development of human personality. Readings include the theories of Freud, Jung, Adler, and Maslow, as well as the representative works of current learning theorists and humanistic theorists. The course includes group discussions, guest lecturers, and student presentations.

**EDP 416115**

Gretchen Reevy, Ph.D.

15 meetings

Wednesdays, 6:30–9:30 pm

January 26–May 11 (no meeting April 20)

Berkeley Campus: 136 Barrows Hall • $585

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**Research Methods in Psychology**

**X106** • 3 semester units in Psychology

45 hours CE credit: BRN

Gain an understanding of the scientific methods behind psychological research in a course designed for those preparing for careers in psychology. Learn methods of designing, collecting, analyzing, and interpreting data using examples from a variety of specialty areas in psychology. Conduct several research projects, including a final project of your own design that helps you think more critically about scientific research in general.

**Prerequisite:** A lower-division general psychology course

**EDP 426064**

Bernadette Guimberteau, Ph.D.

11 meetings

Saturdays, 2–6 pm

February 12–April 30 (also Saturdays, May 7, 1:30–6:30 pm and May 14, 2–6 pm; no meeting February 19 and April 16 and 23)

Berkeley Campus: See Web for updates • $585

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**Positive Psychology**

**X402** • 3 semester units in Psychology

45 hours CE credit: BRN

Gain an understanding of the new academic field of positive psychology, the study of optimal human functioning. Although psychologists have traditionally focused on fixing what is wrong with people by understanding the roots of suffering, such as depression and anxiety, positive psychology concentrates on building what is right in people by scientifically studying strengths and values, such as optimism, resilience, and courage. In this course, you become familiar with the research into the different dimensions of happiness and subjective well-being and acquire skills to implement positive psychology-based concepts in your life and practice.

**EDP 406397**

Alan Bisarya, M.A.Ed.

15 meetings

Wednesdays, 6:30–9:30 pm

January 26–May 11 (no meeting April 20)

San Francisco: Downtown Center • $585
General Psychology

XBW1 • 3 semester units in Psychology (formerly XB1) • 45 hours CE credit: BRN

*Important: Special academic policies apply to XBW courses. See p. 238.*

Psychology is the scientific study of behavior. In a sense, everyone is a psychologist: People explore their surroundings, observe themselves and others, and try to understand and explain their own and other people’s behavior. Get an introduction to the principal areas, problems, and concepts of psychology, including topics such as development, learning, perceptions, emotion, personality, stress, and pathology. Demonstrate your understanding of the course topics through a research paper and final exam.

EDP 897819
Gwynne Pacheco, Ed.D.
Enroll anytime
Online, proctored final exam • $730

Adolescent Psychology

X139.1 • 3 semester units in Psychology
45 hours CE credit: BRN

Explore current theories about the physical, mental, emotional, social, and personality characteristics of adolescents. By examining research findings from growth studies in this and other cultures, you learn to identify the roles American adolescents play in the home, school, social groups, and the community.

EDP 867556
Darrel Dean Richards, Ph.D.
Enroll anytime
Online, proctored final exam • $730

Psychology of Communication

X156.1 • 3 semester units in Behavioral Health and Science
45 hours CE credit: BRN

Recipient of the Meritorious Award for the Best College-Level Distance Course from the University Continuing Education Association (UCEA)

Understand the processes of perception, cognition, motivation, emotion, learning, memory, and creativity in combination with social roles, group affiliations, and cultural backgrounds to explore how people communicate to themselves, to other individuals, within small groups, within large organizations, with mass communication, and in cross-cultural communications.

*Prerequisite:* You must have completed lower-division coursework in general psychology prior to enrolling in this course.

EDP 867572
Michael Swett, Ph.D.
Enroll anytime
Online, proctored final exam • $730
After researching Bay Area continuing education programs to augment her bachelor’s in business management from St. Mary’s College, Laura Harris is convinced that the quality of UC Berkeley Extension’s Certificate Program in Marketing surpasses that of other institutions—even if Berkeley’s certificate has a few more requirements to fulfill. “I just felt like UC Berkeley Extension would cover more, and I’d get more out of it,” Harris says. “That’s why I chose the harder route.”

Returning to school while working full time, Harris points out that a certificate is more focused and requires less time than a master’s degree, which can take several years to complete. And she is already reaping the benefits: “I’ve already gotten a return on my investment in my current job by using some of the principles that I’ve learned in the classes, even before I’ve gotten my certificate,” she says.

The Certificate Program in Marketing is the key to a new career for Harris, who urges other working professionals to consider their options. “Don’t be afraid to come back, because there are other people in the same boat,” she advises. “It’s never too late to change careers, and this is a great way to do it.”
UC Berkeley Extension provides the education to succeed in an ever-changing workplace. Earn a professional certificate that not only meets your profession’s highest standards but also commands the respect of your peers. Acquire technical savvy as well as the leadership and communication skills that make the difference in getting ahead. Take a course focused on exactly what you need to know now.

Instructors with senior-level experience at top companies in their fields ensure an education you can apply on the job. And the Berkeley name attests to outstanding academic quality in the classroom and online.

To break into business or advance in your career, come to UC Berkeley Extension for knowledge and skills critical to your success.

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Business

Free Information Sessions

Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Certificate Program in Accounting
EDP 326983
Thursday, March 10, 5–6 pm
San Francisco: Downtown Center

Certificate Program in Business Administration
EDP 336206
Thursday, March 10, 6–7 pm
San Francisco: Downtown Center

Certificate Program in Business Analysis
EDP 326637
Tuesday, May 17, 6:30–7:30 pm
Berkeley: Downtown Center

Certificate Program in Entrepreneurship and Small Business Management
EDP 306647
Monday, May 23, 5:30–7 pm
San Francisco: Downtown Center

Certificate Program in Finance
EDP 326967
Wednesday, March 9, 5–6 pm
San Francisco: Downtown Center

Certificate Program in Human Resource Management
EDP 306480
Monday, May 9, 5:30–7 pm
San Francisco: Downtown Center

Certificate Program in Leadership and Management
EDP 306712
Monday, May 16, 5:30–7 pm
San Francisco: Downtown Center

Certificate Program in Marketing and Professional Sequences in Marketing Metrics and Integrated Marketing Communications
EDP 306449
Monday, May 16, 5:30–7 pm
San Francisco: Downtown Center

Certificate Program in Project Management
EDP 316794
Wednesday, March 23, 6–8 pm
San Francisco: Downtown Center

Professional Program in Agile Management
EDP 316802
Thursday, March 24, 6–8 pm
San Francisco: Downtown Center

Professional Sequences in Personal Financial Planning and Wealth Management
EDP 326942
Wednesday, March 9, 6–7 pm
San Francisco: Downtown Center

Accounting

COURSE INFORMATION
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/subject/accounting.html

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

CPA AND CMA EXAM PREPARATION
Information about CPA and CMA licensing and renewal requirements is available at the following websites:
California Board of Accountancy
www.dca.ca.gov/cba
Uniform CPA Examination
www.cpa-exam.org
Institute of Management Accountants
www.imanet.org

FREE INFORMATION SESSION
Certificate Program in Accounting
EDP 326983
1 meeting
Thursday, 5–6 pm
March 10
San Francisco: Downtown Center • FREE

Certificate Program in Leadership and Management
EDP 306712
Monday, May 16, 5:30–7 pm
San Francisco: Downtown Center

Certificate Program in Marketing and Professional Sequences in Marketing Metrics and Integrated Marketing Communications
EDP 306449
Monday, May 16, 5:30–7 pm
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EDP 316794
Wednesday, March 23, 6–8 pm
San Francisco: Downtown Center

Professional Program in Agile Management
EDP 316802
Thursday, March 24, 6–8 pm
San Francisco: Downtown Center

Professional Sequences in Personal Financial Planning and Wealth Management
EDP 326942
Wednesday, March 9, 6–7 pm
San Francisco: Downtown Center
Introduction to Financial Accounting
XB102A • XBW102A (online sections)  
(Online sections formerly XB102A)  
3 semester units in Business Administration  
A requirement in the Certificate Program in Accounting.  
Important: Special academic policies apply to XB and XBW courses. See p. 238.

Learn financial accounting fundamentals and the identification, measurement, and reporting of the financial effects of economic events on enterprises. Topics include accrual accounting concepts; transaction analysis, recording, and processing (journals and ledgers); preparation, understanding, and analysis of financial statements; accounting for sales and cost of sales; inventory valuation; depreciation of operational assets; and accounting for investments, liabilities, and present value concepts.

Sec. 1 EDP 316877  
Ronald J. Macaluso, M.B.A.  
15 meetings  
Mondays, 6:30–9:30 pm  
January 3–April 25  
(no meeting January 17 and February 21)  
Berkeley: Golden Bear Center • $775

Sec. 2 EDP 316893  
Danny Lee, M.B.A.  
15 meetings  
Mondays, 6:30–9:30 pm  
January 3–April 25  
(no meeting January 17 and February 21)  
Belmont: Belmont Center • $775

Sec. 3 EDP 316885  
Erich Zielonka, M.A.  
15 meetings  
Tuesdays and Thursdays, 6:30–9:30 pm  
January 4–February 22  
San Francisco: Downtown Center • $775

Sec. 4 EDP 897934  
Joseph McPeak, M.S., M.B.A., CPA,  
Extension Honored Instructor  
Enroll anytime  
Online, proctored final exam • $770

Sec. 5 EDP 897918  
Andrew Barnett, Ph.D., CPA,  
Extension Honored Instructor  
Enroll anytime  
Online, proctored final exam • $770

Introduction to Managerial Accounting
XB102B • XBW102B (online sections)  
(Online sections formerly XB102B)  
3 semester units in Business Administration  
A requirement in the Certificate Program in Accounting.  
Important: Special academic policies apply to XB and XBW courses. See p. 238.

This course introduces the concepts, theory, and practice of the cost control function of management. Learn what information is needed within an organization; where this information can be obtained; and how managers can use this information to plan, control, and make decisions. Topics include cost behavior and forecasting, capital budgeting, activity-based costing and ABC management, costs of quality and productivity improvement programs, cost-volume analysis, tactical decision making, and transfer pricing.

XB102A Introduction to Financial Accounting or equivalent is strongly recommended.

Sec. 1 EDP 326652  
Gregory Sinclair, M.B.A.  
14 meetings  
Tuesdays, 6:30–9:30 pm  
January 4–March 22 (also Saturdays, March 26 and April 2, 10 am–3:30 pm)  
San Francisco: Downtown Center • $775

Sec. 2 EDP 326231  
Gregory Sinclair, M.B.A., CPA  
15 meetings  
Wednesdays, 6:30–9:30 pm  
January 5–April 13  
Berkeley: Golden Bear Center • $775

Sec. 3 EDP 897942  
Martha S. Doran, Ph.D., CPA  
Enroll anytime  
Online, proctored final exam • $770

Intermediate Financial Accounting I
X421.1 • 3 semester units in Business Administration
Build on the financial accounting concepts and principles covered in Introduction to Financial Accounting XB102A. Following an in-depth review of the accounting environment and the nature of accounting information, you study time value of money concepts and explore basic financial statements. You give detailed attention to how enterprises account for assets: cash, accounts receivable, inventories, property and equipment, intangible assets, and long-term investments.

Prerequisite: Introduction to Financial Accounting XB102A or equivalent

Sec. 1 EDP 336545  
Instructor to be announced  
15 meetings  
Wednesdays, 6:30–9:30 pm  
January 5–April 13  
Belmont: Belmont Center • $775

Sec. 2 EDP 846436  
Michael Tydalska, CPA  
January 18–April 12  
Online, proctored final exam • $820

Sec. 3 EDP 316828  
Dong Ha Lee, M.B.A., Ed.D.  
15 meetings  
Tuesdays and Thursdays, 6:30–9:30 pm  
February 24–April 19 (no meeting April 14)  
San Francisco: Downtown Center • $775

Intermediate Financial Accounting II
X421.2 • 3 semester units in Business Administration
Expand upon the financial accounting concepts and principles developed in Intermediate Financial Accounting I X421.1, and learn how enterprises account for liabilities and equity accounts, including current and noncurrent liabilities, leases, pensions, income taxes, contributed capital, retained earnings, and stock options. Additional topics include earnings per share, the statement of cash flows, accounting changes, and error corrections.

Prerequisites: Introduction to Financial Accounting XB102A or equivalent. This course typically follows Intermediate Financial Accounting I X421.1, but that course is not a prerequisite.

Sec. 1 EDP 316851  
Joseph McPeak, M.S., M.B.A., CPA,  
Extension Honored Instructor  
15 meetings  
Wednesdays, 6:30–9:30 pm  
January 5–April 13  
San Francisco: Downtown Center • $775

Sec. 2 EDP 846469  
Kelly Pope, Ph.D.  
January 18–April 12  
Online, proctored final exam • $820
Advanced Financial Accounting
X421.3 • 3 semester units in Business Administration
A requirement in the Certificate Program in Accounting, Financial and Business Analysts Specialization
Get a comprehensive understanding of consolidated financial statements and how to prepare them. Focus on the accounting principles, methods, and techniques that relate to particular types of business and nonbusiness entities, including corporations, partnerships, government units, estates and trusts, and nonprofit organizations. Limited time is devoted to exploring certain tax aspects of consolidated financial statements.
Prerequisite: Substantial accounting background
Sec. 1 EDP 326157
George Perko, M.B.A., CPA
15 meetings
Wednesdays, 6:30–9:30 pm
February 16–May 25
San Francisco: Downtown Center • $775
Sec. 2 EDP 897728
Joseph McPeak, M.S., M.B.A., CPA,
Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $770
Auditing
XBW126 • 4 semester units in Business Administration • (formerly XB126)
Important: Special academic policies apply to XBW courses. See p. 238.
Examine the professional responsibilities of auditors, the design of audits, technology and sampling approaches, appropriate tests of internal controls, substantive tests, and other responsibilities of certified public accountants (CPAs). You also prepare for the auditing section of the CPA exam and work as part of a team on an audit plan.
Prerequisites: Intermediate Financial Accounting I X421.1 and Intermediate Financial Accounting II X421.2, equivalent experience, or consent of instructor
EDP 897926
Andrew Barnett, Ph.D., CPA,
Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $770
Auditing and Attestation
X422.2 • 3 semester units in Business Administration
Get a solid theoretical and practical background in auditing. You learn to examine an organization’s financial statements to determine if they fairly present the organization’s current financial position and results of operations and are free of significant errors. You also gain a solid background for the auditing section of the CPA examination.
Prerequisite: Intermediate Financial Accounting I X421.1, Intermediate Financial Accounting II X421.2, or consent of instructor
EDP 316927
Harry F. Lorsbach, M.B.A., CPA, CIA
15 meetings
Mondays, 6:30–9:30 pm
January 3–April 25 (no meeting January 17 and February 21)
San Francisco: Downtown Center • $730
Accounting for Managers
X421.5 • 3 semester units in Business Administration
A requirement in the Certificate Program in Business Administration
You do not need an accounting background but you should have some aptitude for numbers to succeed in this course. After learning the basics of financial accounting, examine how to use accounting information for effective management. Topics include basic accounting principles, understanding financial statements, income measurement, cost-volume-profit relationships, budgeting, cost allocation, profit- and cost-center accounting, accounting for planning and control, and data for decision making.
Sec. 1 EDP 316844
Catherine Beegan, M.B.A.
15 meetings
Tuesdays, 6:30–9:30 pm
January 4–April 12
Belmont: Belmont Center • $775
Sec. 2 EDP 326223
Catherine Beegan, M.B.A.
15 meetings
Thursdays, 6:30–9:30 pm
January 6–April 14
San Francisco: Downtown Center • $715
Sec. 3 EDP 316869
Gregory Sinclair, M.B.A., CPA
15 meetings
Thursdays, 6:30–9:30 pm
January 6–April 14
Berkeley Campus: 136 Barrows Hall • $775
Financial Statement Analysis
X419.2 • 2 semester units in Business Administration
A requirement in the Certificate Program in Finance, Corporate Finance Specialization; and in Accounting, Accounting for Financial and Business Analysts Specialization
This course focuses on the effective analysis of financial statements, integrating the concepts and principles you learned in previous accounting courses. You examine the analytical tools for assessing a company’s performance, the concept of quality of earnings, approaches to valuation, and other issues.
Prerequisites: Introduction to Financial Accounting XB102A, access to Microsoft Excel, and basic Excel skills
Sec. 1 EDP 326199
Kenneth Kurtz, M.Acc.
10 meetings
Tuesdays, 6:30–9:30 pm
March 15–May 17
Berkeley: Golden Bear Center • $715
Sec. 2 EDP 326207
Kenneth Kurtz, M.Acc.
10 meetings
Tuesdays, 6:30–9:30 pm
March 15–May 17
Belmont: Belmont Center • $715
Sec. 3 EDP 326215
Don Uy-Barreta, M.B.A., M.S.
10 meetings
Wednesdays, 6:30–9:30 pm
March 16–May 18
Belmont: Belmont Center • $715
Sec. 4 EDP 897074
Donald R. Byrne, M.B.A., Ph.D.
Enroll anytime
Online, proctored final exam • $715
Certificate Program in Accounting

UC Berkeley Extension’s Certificate Program in Accounting is designed to provide you with a broad and thorough understanding of accounting principles and financial reporting practices, to keep you abreast of innovations in the field, and to enhance your proficiency in accounting-related functions such as financial analysis and data interpretation. This professional certificate employs materials and techniques that are consistent with modern principles and best practices, providing knowledge and skills that you can use immediately. It also offers the advantage of a curriculum that is overseen by an advisory board of business and education leaders; approved by the University of California, Berkeley, Haas School of Business; and taught by working professionals with many years of practical business experience.

Curriculum Requirements
The curriculum consists of 7 required courses (3 core courses and 4 specialization courses) for a total of 18–19 semester units (at least 270 hours of instruction).

Required Core Courses
We recommend you begin the program with Introduction to Financial Accounting XB102A.
• Introduction to Financial Accounting XB102A (offered every term and online as XBW102A)
• Introduction to Managerial Accounting XB102B (offered every term and online as XBW102B)
• Intermediate Financial Accounting II X42I.2 (offered every term and online)

Accounting for Controllers Specialization
• Cost Accounting X419 (offered summer term and online)
• Advanced Financial Accounting X421.3 (offered spring term and online)
• Taxation for Corporations and Other Flow-Through Entities X419.5 (offered spring and fall terms and online)
• Principles of Business Law X410.1 (offered every term and online)

Accounting for Financial and Business Analysts Specialization
• Basic Corporate Finance X430.1 (offered every term and online)
• Financial Statement Analysis X419.2 (offered spring and summer terms and online)
• Advanced Financial Accounting X421.3 (offered spring term and online)
• Business Valuation X431.9 (offered spring and summer terms and online)

Learn More and View the Brochure
extension.berkeley.edu/cert/account.html
(510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 152074
**Taxation for Corporations and Other Flow-Through Entities**

X419.5 • 3 semester units in Business Administration

A requirement in the Certificate Program in Accounting, Accounting for Controllers Specialization

This course provides a general description of the major provisions of the tax laws for filing in calendar years 2009–10. You study the taxation of corporations, “S” corporations, partnership taxation, income taxation of estates, trusts and gifts, and tax accounting methods and periods. You also review rules governing formation, operation, and disposition of partnerships and corporations.

Sec. 1 EDP 326124
Joseph McPeak, M.S., M.B.A., CPA,
Extension Honored Instructor

15 meetings
Thursday, 6:30–9:30 pm
January 6–April 14
San Francisco: Downtown Center • $775

Sec. 2 EDP 897538
Joseph McPeak, M.S., M.B.A., CPA,
Extension Honored Instructor

Enroll anytime
Online, proctored final exam • $770

**Cost Accounting**

X419 • 2 semester units in Business Administration

A requirement in the Certificate Program in Accounting, Accounting for Controllers Specialization

Take on an intensive study covering basic cost accumulation systems and refinements used to determine costs of products or activities in various types of enterprises. Prepare to emphasize managerial cost analysis and management decision planning.

**Prerequisites:** Introduction to Financial Accounting X8102A and Managerial Accounting X8102B or equivalent

EDP 897603
Joseph McPeak, M.S., M.B.A., CPA,
Extension Honored Instructor

Enroll anytime
Online, proctored final exam • $730

**Agile Management**

**COURSE INFORMATION**

(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/business

**Free Information Session:**

**Professional Program in Agile Management**

The Professional Program in Agile Management provides managers at all levels with the knowledge and skills to successfully use Agile Management techniques in complex organizations. Agile Management is a framework of values, principles, and practices that allows managers to plan work, engage teams, and leverage changing market conditions in a way that increases productivity and benefits to customers. Attend this free information session to meet instructors, program staff, and other prospective students, and find out how the program can make a difference in your career as a manager. For details, see p. 53 or visit extension.berkeley.edu/spos/agile.html.

EDP 316802
1 meeting
Thursday, 6–8 pm
March 24
San Francisco: Downtown Center • FREE

**Agile Management: Principles and Practices**

X486.1 • 2 semester units in Business Administration

A requirement in the Professional Program in Agile Management

An Agile Management framework of values, principles, and practices allows managers at all levels to more effectively respond to change, work collaboratively with customers, and increase productivity. Enroll in this course if you are interested in learning the core principles of Agile Management and how to apply them in an organization. Through highly interactive exercises, you learn how to use the Agile framework to successfully leverage change, improve team interaction, and delight customers.

EDP 316653
Patricia Reed, M.B.A., PMP, and Walt Wyckoff, M.B.A.

5 meetings
Saturdays, 9 am–4 pm
January 8–February 12 (no meeting January 15)
San Francisco: Downtown Center • $675

**Agile Management Mastery**

X498.8 • 2 semester units in Business Administration

A requirement in the Professional Program in Agile Management

Work with agile experts to deepen your understanding and experience of Agile Management. Delve into the agile framework through case studies and action-based experiential learning techniques to master an Agile Management mind-set. Explore the intrinsic motivators of autonomy, mastery, and purpose and the impact of a values-based strategy on organizational performance. Learn techniques to help you create, promote, and sustain a culture of Agility and customer value at your organization.

EDP 316646
Jim Highsmith, M.A., and Patricia Reed, M.B.A., PMP

5 meetings
Fridays and Saturdays, 9 am–4 pm
April 1–April 15
San Francisco: Downtown Center • $750

**Emergent Strategies: Business Planning in Agile Management**

X498.5 • 1 semester unit in Business Administration

An elective in the Professional Program in Agile Management

Learn how to create an emergent strategy through learning games and active planning exercises. Then, apply those concepts to case studies that require you to set up iterative planning cycles, make trade-off decisions, and use Agile practices for decision making. Reflect on these experiences in the group, and develop a shared “lessons learned” retrospective.

EDP 316661
Volker Frank, M.A.

2 meetings
Saturdays, 9 am–5 pm
May 14 and May 21
San Francisco: Downtown Center • $450
Agile Management

0.7 ceu • 7 pdu: PMI provider 1173

An elective in the Professional Program in Agile Management

Agile Management is a framework of values, principles, and practices for solving problems and increasing productivity. This highly interactive one-day course introduces the fundamentals of an Agile approach to problem solving. Through learning games, team exercises, and discussion, you discover how an Agile framework can help you leverage change and reach a successful outcome.

Sec. 1 EDP 316588
Patricia Reed, M.B.A., PMP, and Ainsley Nies, M.S., PMP
1 meeting
Friday, 9 am–5 pm
February 11
Belmont: Belmont Center • $295

Sec. 2 EDP 316612
Patricia Reed, M.B.A., PMP, and Ainsley Nies, M.S., PMP
1 meeting
Saturday, 9 am–5 pm
March 12
San Francisco: Downtown Center • $295

Sec. 3 EDP 316620
Patricia Reed, M.B.A., PMP, and Ainsley Nies, M.S., PMP
1 meeting
Saturday, 9 am–5 pm
May 14
San Francisco: Downtown Center • $295

Disruptive Leadership

X486.4 • 2 semester units in Business Administration

An elective in the Professional Program in Agile Management

Managers work in a world where expectations are off the charts, commitments are tenuous, priorities shift, and responsibility is given with marginal authority. In this highly interactive course, learn proven disruptive leadership practices to keep your customers out of harm’s way, leverage personal strengths, stimulate creative solutions, and inspire innovation. Learn how to apply out-of-the-box management techniques to solve performance problems, promote creativity, encourage innovative thinking in your team, improve communication, and unleash your personal potential.

EDP 316737
Gopal Kapur, B.S.
1 meeting
Friday, 9 am–5 pm
April 29
San Francisco: Art and Design Center • $295

NEW THIS TERM

Project Chartering

X474.6 • 1 semester unit in Business Administration

An elective in the Professional Program in Agile Management

Learn how to create a project charter, a preliminary project management document that details the scope, objectives, and participants of an upcoming project. Understand the importance of such a document in establishing authority and responsibility, and in providing a baseline reference for the resulting project so that the project team members can work more effectively towards a common goal.

EDP 336495
Ainsley Nies, M.S., PMP, and Diana Larsen, B.A., PMP
2 meetings
Friday and Saturday, 9 am–5 pm
February 25 and 26
San Francisco: Downtown Center • $450

Lean Practices

X498.7 • 1 semester unit in Business Administration

An elective in the Professional Program in Agile Management

Today’s business world is lean and mean, with fewer employees, fewer levels of management, and increased global competition. This course—designed for people exploring the field of lean management, as well as for experienced practitioners seeking to update their knowledge—defines lean performance-improvement methods and ways to eliminate waste. Explore current and emerging models and theories and practical methods to effectively connect lean practices to reaching organizational and business goals.

EDP 316679
Instructor to be announced
2 meetings
Friday and Saturday, 9 am–5 pm
March 18 and 19
San Francisco: Downtown Center • $450

Retrospective Facilitation

X472.9 • 1 semester unit in Business Administration

An elective in the Professional Program in Agile Management

Knowledge gained from experience is an investment you have already made. Retrospectives, a reflective process focused on the future, provide the framework for transforming that experience into knowledge and learning assets. This course provides experiential training for the facilitation of retrospectives at any point in project work. Learn to develop a process framework for commissioning, planning, and conducting successful retrospectives. Gain practical experience from a set of exercises that provide immersion in retrospective facilitation skills.

EDP 316687
Ainsley Nies, M.S., PMP, and Diana Larsen, PMP
2 meetings
Saturdays, 9 am–5 pm
April 30 and May 7
San Francisco: Downtown Center • $395
Business Administration

COURSE INFORMATION
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/subject/businessadmin.html

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

FREE INFORMATION SESSION
Certificate Program in Business Administration

Learn how a certificate in business administration from UC Berkeley Extension can benefit your career, whether you’re a new manager or a professional seeking a career transition with more management responsibilities. For certificate details, see p. 55 or visit extension.berkeley.edu/cert/busad.html.

EDP 336206
1 meeting
Thursday, 6–7 pm
March 10
San Francisco: Downtown Center • FREE

Organization and Management
X490.1 • 2 semester units in Business Administration

A requirement in the Certificate Program in Business Administration; an elective in the Certificate Program in Leadership and Management

Study high-level leadership strategies and gain skills in resolving disputes, managing diversity, and building productive teams. Using case studies and small group discussions, you explore issues such as organizational conflict and power, management development, interpersonal influence, and the advantages and drawbacks of participative management.

Sec. 1 EDP 306290
Gene Hendrix, Ph.D., Extension Honored Instructor
5 meetings
Saturdays, 9 am–4 pm
January 8–February 12 (no meeting January 15)
San Francisco: Downtown Center • $675

Sec. 2 EDP 846261
Catherine Pinkas, M.B.A., PMP
January 18–April 12
Online • $735

Sec. 3 EDP 306308
Gene Hendrix, Ph.D., Extension Honored Instructor
5 meetings
Saturdays, 9 am–4 pm
April 9–May 7
Belmont: Belmont Center • $675

Essentials of Business
X406.6 • 2 semester units in Business Administration

A requirement in the Certificate Program in Business Administration

This course is an introduction to the goals, processes, and operations of business enterprises for students without any previous business knowledge. The main focus is on the functions that a company must manage effectively to be successful. These include accounting, finance, human resource management, marketing, operations management, and strategic planning. Attention is also given to the legal environment in which businesses operate and the importance of business ethics and corporate citizenship.

Sec. 1 EDP 326595
Instructor to be announced
10 meetings
Thursdays, 6:30–9:30 pm
March 17–May 19
San Francisco: Downtown Center • $715

Sec. 2 EDP 326603
Mark E. Bettini, M.B.A., Extension Honored Instructor
10 meetings
Wednesdays, 6:30–9:30 pm
March 23–May 25
Berkeley: Golden Bear Center • $715

Sec. 3 EDP 326611
Reggie Murray, B.S.E.E., M.B.A., Ed.D.
10 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
April 19–May 19
Belmont: Belmont Center • $715

Sec. 4 EDP 897314
Kevin M. Shea, M.B.A.
Enroll anytime
Online, proctored final exam • $715

Fundamentals of Finance
X412.5 • 2 semester units in Business Administration

A requirement in the Certificate Program in Business Administration; an elective in the Certificate Program in Leadership and Management

This course provides a broad, practical introduction to financial management for students without any previous knowledge of finance or accounting. The course covers an overview of the three principal financial statements; the use of financial ratios to assess a firm’s financial health; financial planning and forecasting; the choice of debt or equity to finance business operations; and the evaluation of investment opportunities using tools such as discounted cash flow, net present value, and risk analysis.

This course assumes no prior knowledge of finance or accounting. Although the course emphasizes conceptual understanding over detailed numerical analysis, it does use basic math, such as solving an equation with one unknown.

Sec. 1 EDP 326025
Instructor to be announced
10 meetings
Mondays, 6:30–9:30 pm
January 3–March 21
(no meeting January 17 and February 21)
Belmont: Belmont Center • $715

Sec. 2 EDP 326033
Robert Coackley, B.S.
10 meetings
Tuesdays, 6:30–9:30 pm
January 4–March 8
Berkeley: Golden Bear Center • $715

Sec. 3 EDP 326041
Robert Coackley, B.S.
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
San Francisco: Downtown Center • $715
Certificate Program in Business Administration

The Certificate Program in Business Administration introduces the fundamental concepts, practices, and vocabulary of business so that you can develop a broad-based practical understanding of its context, purpose, and underlying functional areas: accounting, economics, finance, marketing, and management. Whether you’re a new business manager or a professional seeking a career transition with greater business responsibilities, this certificate employs materials and techniques that are consistent with modern principles and best practices—providing knowledge and skills that you can use immediately. You also get the advantage of a curriculum that is overseen by an advisory board of business and education leaders; approved by the University of California, Berkeley, Haas School of Business; and taught by working professionals with many years of practical business experience.

Curriculum Requirements
The curriculum consists of 6 required courses and 1 elective for a total of 15 semester units (225 hours of instruction).

Required Courses
- Essentials of Business X406.6 (offered every term and online)
- Accounting for Managers X421.5 (offered every term)
- Essentials of Economics X402.8 (offered every term and online)
- Fundamentals of Finance X412.5 (offered every term)
- Introduction to Marketing X460.1 (offered every term and online)
- Organization and Management X475.2 (offered every term and online)

Electives
For a list of electives available this term, please visit extension.berkeley.edu/cert/busad.html.

Learn More and View the Brochure
extension.berkeley.edu/cert/busad.html
(510) 642-4231
business@unex.berkeley.edu

Enroll using EDP 152025
International Business

Communicating Across Cultures: Marketing and Sales Challenges Around the World
X495.7 • 2 semester units in Business Administration
An elective in the Certificate Program in Marketing

Global transactions are becoming the norm in business, and marketing and sales professionals face a variety of communications challenges in adapting to the international marketplace. Examine the theories of specific culture-bridging tools and techniques needed by today’s international sales and marketing practitioners.

EDP 897181
Gwynne Pacheco, Ed.D.
Enroll anytime
Online, proctored final exam • $575

International Business Management
X495.1 • 2 semester units in Business Administration

Examine successful international business strategies, and learn how to internationalize your business and your career. Learn the basics of marketing, economics, finance, and business negotiation in an international context. The course uses an entrepreneurial perspective but prepares you for participation in larger international businesses.

EDP 897173
Christopher Lai, M.B.A., Ph.D.
Enroll anytime
Online • $715

Import/Export: Trade Operations
X495.9 • 2 semester units in Business Administration

As economic globalization increases, the potential for companies and individuals to expand markets and increase their sales is greater than ever. For those who embrace importing and exporting opportunities, knowledge of the fundamentals of international merchandise trade is essential. Gain comprehensive knowledge of the mechanics of international trade, including topics such as payment methods, risk analysis, modes of transportation, and import/export documentation.

EDP 897199
Tekle Sebhatu, M.B.A., Ph.D.
Enroll anytime
Online • $575

Business Analysis

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

FREE INFORMATION SESSION
Certificate Program in Business Analysis

Discover how learning the fundamentals of business analysis can improve your career opportunities, whether you are an executive looking for more systems development knowledge or a technical worker who wants to move into management. Meet staff who can tell you about available courses and the benefits of business analysis expertise. For certificate details, see p. 57 or visit extension.berkeley.edu/cert/busanalysis.html.

EDP 326637
1 meeting
Tuesday, 6:30–7:30 pm
May 17
Berkeley: Golden Bear Center • FREE

Business Analysis Essentials and Planning
X448.1 • 3 semester units in Business Administration
A requirement in the Certificate Program in Business Analysis

Learn business analysis fundamentals as well as the planning and monitoring knowledge areas—the first of the seven generally accepted areas that define the profession’s framework. Discover how practitioners determine and plan which activities are necessary to complete a business analysis effort. Master essential analysis theories that govern the performance of all other business analysis and transformation tasks.

Sec. 1 EDP 846691
Ashley Wright, B.S., M.B.A.
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

Sec. 2 EDP 846709
Ashley Wright, B.S., M.B.A.
March 3–April 20
Online, accelerated 8-week format, proctored final exam • $995

Elicitation, Requirements Management, and Communication
X448.2 • 2 semester units in Business Administration
A requirement in the Certificate Program in Business Analysis

Learn how to manage conflicts, issues, and changes to ensure that stakeholders agree on the solution scope and the way requirements are communicated. Study the elicitation knowledge area, which includes details for eliciting business, stakeholder, solution, or transition requirements. You also explore the requirements management and communication knowledge area, which describes the activities and considerations for managing and expressing requirements to a broad and diverse audience. Gain the training and knowledge necessary to become a Certified Business Analyst Professional (CBAP).

Students should be familiar with business operations, and those who intend to sit for the CBAP® exam should also meet IIBA® testing requirements.

Sec. 1 EDP 846717
David Zhu, B.S., PMP, CISA
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

Sec. 2 EDP 846725
David Zhu, B.S., PMP, CISA
March 3–April 20
Online, accelerated 8-week format, proctored final exam • $995
Certificate Program in Business Analysis

Business transformation and process adaptation are critical to the competitive survival of business enterprises. Business analysis plays a key role in ensuring that strategic plans for transformation are implemented efficiently. Learn how a business analyst communicates requirements from subject matter experts to technical teams to ensure that optimized solutions can be designed and implemented. The Certificate Program in Business Analysis turns your familiarity with business operations into expertise in business analysis so that you can move your company confidently to future success. UC Berkeley Extension offers this professional certificate in classroom, online, and hybrid versions, giving you the flexibility to master these new skills at your own convenience.

Curriculum Requirements
The curriculum consists of 4 required courses for a total of 10 semester units (150 hours of instruction).

Required Courses
- Business Analysis Essentials and Planning X448.1 (offered fall and spring terms and online)
- Elicitation, Requirements Management, and Communication X448.2 (offered fall and spring terms and online)
- Enterprise and Requirements Analysis X448.3 (offered online)
- Solution Assessment and Validation, Underlying Competencies X448.4 (offered online)

Learn More and View the Flyer
extension.berkeley.edu/cert/busanalysis.html
(510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 312109

FIND THE QUALITY YOU WANT
- OVERSEEN BY ENTREPRENEURIAL BUSINESS LEADERS
- TAUGHT BY WORKING BUSINESS PROFESSIONALS

FIND THE FOCUS YOU NEED
- DEVELOP OPPORTUNITY
- MANAGE OPERATIONS
- FINALIZE BUSINESS PLANS
Onl

Those who intend to sit for the CBAP® exam should become a Certified Business Analyst Professional (CBAP®).

Examine underlying competencies such as those who intend to sit for the CBAP® exam should also meet the IIBA® testing requirements.

NEW THIS TERM

Enterprise and Requirements Analysis
X448.3  •  3 semester units in Business Administration

A requirement in the Certificate Program in Business Analysis

Master the ability to identify a business need using enterprise and requirements analysis, which lets you refine and clarify the definition of that need and define a solution scope that can be feasibly implemented by the business. Learn how enterprise analysis describes problem definition and analysis, business case development, feasibility studies, and the definition of solution scope. Study how requirements analysis explains how business analysts prioritize stakeholder and solution requirements to better implement solutions. Gain the training and knowledge necessary to become a Certified Business Analyst Professional (CBAP®).

Those who intend to sit for the CBAP® exam should also meet the IIBA® testing requirements.

Sec. 1 EDP 846766 Rohini Patel
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

Sec. 2 EDP 846741 Rohini Patel
March 3–April 28
Online, accelerated 8-week format, proctored final exam • $995

NEW THIS TERM

Solution Assessment and Validation, Underlying Competencies
X448.4  •  2 semester units in Business Administration

A requirement in the Certificate Program in Business Analysis

Learn to assess proposed solutions to determine which best fit the business need, as well as to identify gaps and shortcomings in solutions and determine necessary work-arounds or changes to the solution. Learn how business analysts assess deployed solutions to see how well they meet the original need of the sponsoring organization. Examine underlying competencies such as behaviors, knowledge, and other characteristics that support the effective performance of business analysis. Gain the training and knowledge necessary to become a Certified Business Analyst Professional (CBAP®).

Those who intend to sit for the CBAP® exam should also meet the IIBA® testing requirements.

Sec. 1 EDP 846758 Ashley Wright, M.S., M.B.A.
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

Sec. 2 EDP 846774 Ashley Wright, M.S., M.B.A.
March 3–April 28
Online, accelerated 8-week format, proctored final exam • $995

Business Communication

COURSE INFORMATION
(510) 642-4231
business@extension.berkeley.edu
extension.berkeley.edu/business

ONLINE COURSE INFORMATION
(510) 642-7343
online@extension.berkeley.edu
extension.berkeley.edu/online

Business Communication: Writing and Speaking
X404.7  •  2 semester units in Business Administration

An elective in the Certificate Program in Leadership and Management

Learn to be more confident and effective when making written and oral presentations. Coursework includes drafting a wide range of documents—including e-mails, memos, letters, and reports—as well as learning interpersonal communication techniques and presentation skills.

EDP 306753
Barbara Nelson, M.A.
5 meetings
Saturdays, 9 am–4 pm
March 5–April 2
San Francisco: Downtown Center • $675

Best Practices in Negotiation
0.8 ceu

Everyone negotiates, but some are much better at this vital skill than others and, consequently, more likely to reach ambitious goals and receive more recognition and rewards. In this seminar, you learn the best techniques for striking better bargains, making lasting agreements, and sustaining positive relationships while also learning how to recognize and address the tactics of counterparts. Equally important, you learn to become a savvier negotiator, including scenarios in buying, selling, and financing cars, housing, and other big-ticket situations.

EDP 306530
Gary Goodman, J.D., M.B.A., Ph.D.
1 meeting
Saturday, 9 am–5:30 pm
March 26
San Francisco: Downtown Center • $395

Grant and Proposal Writing for Professionals
1.3 ceu

In today’s competitive business climate, poorly written proposals that do not meet a funding or government agency’s requirements won’t make it through the first stage of review. Learn to meet the challenges of writing proposals that ensure your organization remains competitive. Gain the skills necessary to tackle the proposal-writing process—from finding funding and contracting opportunities to scheduling tasks to writing and editing effective proposals. Class time focuses on research, planning, and writing strategies.

EDP 306340
Melanie Wise, M.A.
2 meetings
Saturdays, 9 am–4:30 pm
March 19 and March 26
San Francisco: Art and Design Center • $395

Two-Day Business-Writing Workshop
1.2 ceu

Learn to get important points across quickly in your business writing. Examine how best to target readers, select and organize information, and use clear language. Then, apply these techniques to job-related memos, e-mails, letters, reports, and other documents to ensure that you communicate in an effective and concise manner.

EDP 306175
Margaret Steen, M.J., Extension Honored Instructor
2 meetings
Mondays, 9 am–4 pm
February 7 and February 14
San Francisco: Downtown Center • $575

Two-Day Business Presentation Skills Workshop
1.2 ceu

Learn to represent yourself more effectively in today’s highly competitive business climate. Through a series of on-camera exercises, you receive coaching in the practical tools necessary to create dynamic, professional presentations. You learn how to produce a great first impression by projecting a confident image, organizing your content for impact, interacting effectively with visual aids, and creating a stronger connection with your listeners so that they can better hear and retain your message. Enrollment is limited to 16 participants.

EDP 306183
Ed Alter, B.A.
2 meetings
Wednesdays, 9 am–4 pm
February 2 and February 9
San Francisco: Downtown Center • $575

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Business Writing Review
X455 • 1 semester unit in English
Your skill in crafting letters, e-mails, memos, and reports determines how effectively you deliver your message to, or on behalf of, your organization. In this course, refresh and refine your business writing skills by learning to edit your writing, identify your grammar and punctuation problems, and organize your ideas for clarity. You review the basics of composing effective business letters, memos, and reports, as well as how to find the style and format that fits your subject and audience.

EDP 877852
Margaret Steen, M.J., Extension Honored Instructor
Enroll anytime
Online • $550

Organizational Communication Strategies for Managers
Gain the skills to communicate effectively in a complex business environment.
For course schedule, see p. 73.

Business Negotiating
Learn techniques to overcome obstacles that prevent you from reaching your goals.
For course schedule, see p. 73.

Mediation and Conflict Resolution Seminar
In this intensive 40-hour training, you gain the skills and confidence to resolve almost any business dispute as a mediator, negotiator, or representative.
For course schedule, see p. 72.

English Courses for Nonnative Speakers
If you are a professional whose native language is not English and you want to improve your core skills in English, you can benefit from these courses.
For course schedules and information, see p. 147.

Business Process Management

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/engineering

BPM 1: Business Process Modeling and Analysis
X441.1 • 1 semester unit in Business Administration
A requirement in the Professional Program in Business Process Management
Business process modeling (BPM) can be an extremely powerful diagnostic tool for your organization. Learn to overcome obstacles that can cripple your processes and frustrate customers and employees. Study the key concepts and techniques found in the Business Process Management Common Body of Knowledge (BPM CBOK®) and learn to apply them to your own, real-world situation. You gain insight that gets to the root cause of quality and time-line issues and learn how to identify short-term and longer-term improvements.

EDP 306761
Shelley Sweet, M.A.
2 meetings
Saturdays, 8:30 am–5 pm
February 26 and March 12
Berkeley: Golden Bear Center • $445

NEW THIS TERM

BPM 3: Performance Measurement, Enterprise, and Technology
X441.3 • 1 semester unit in Business Administration
A requirement in the Professional Program in Business Process Management
Learn how to align your operational processes with customer needs and business strategy to build an enterprise that supports process and measures. Discover what types of BPM technology can add value. Study key concepts and techniques found in the framework of the Business Process Management Common Body of Knowledge (BPM CBOK®), and apply them to your own, real-world situation.

EDP 316224
Shelley Sweet, M.A.
2 meetings
Saturdays, 8:30 am–5 pm
April 2 and April 16
Berkeley: Golden Bear Center • $445

With the Professional Program in Business Process Management, you learn how to optimize business processes by blending traditional business and IT theories and practices. Study strategies to use technology more efficiently to support your business goals. Ultimately, create an IT and management environment that can react more quickly to changing business needs through a process that involves a cycle of design, modeling, execution, monitoring, and optimization.

Curriculum Requirements
The curriculum consists of a minimum of 3 courses (including at least 2 from the core course list) for a total of 3 semester units (45 hours of instruction).

Core Courses
Choose a minimum of 2 courses from this list:
• BPM 1: Business Process Modeling and Analysis X441.1 (offered spring and fall terms)
• BPM 2: Business Design, Transformation, and Organization X441.2 (offered fall term)
• BPM 3: Performance Management, Enterprise, and Technology X441.3 (offered spring term)

Electives
For a list of available electives this term, visit extension.berkeley.edu/spos/bpm.html.

Learn More
extension.berkeley.edu/spos/bpm.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 312116
Study how markets work, and gain a real understanding of the role of economics in business, public, and private decision making. Learn ways to think about how humans allocate resources, including markets and prices, consumer and producer behavior, and risk and cost measurement. Use this knowledge for further study in economics, or apply it in your everyday business dealings to make more effective decisions.

Introduction to Macroeconomics
X3 • 3 semester units in Economics
This course introduces basic concepts and tools used in macroeconomic analysis: the theory, measurement, and determination of national income; business cycles; the multiplier; fiscal policy, budget deficits, and the national debt; aggregate supply and aggregate demand; exchange rates and balance of payments accounts; and stabilization policy for unemployment and inflation. You may take Introduction to Microeconomics X2 concurrently with this course.

Introduction to Entrepreneurship/Opportunity Recognition
X408.9 • 1 semester unit in Business Administration
Learn the essentials to becoming a successful entrepreneur and avoiding common pitfalls. Gain foundational knowledge, and explore the strengths and weaknesses of your entrepreneurial plan. Topics include defining and refining the idea, developing the opportunity, and business venture planning and delivery. You learn the importance of the business plan as preparation for launching your business venture, managing the business, and obtaining investor dollars.

Online, proctored final exam • $715

Entrepreneurship
and Small Business Management

Free Information Session: Certificate Program in Entrepreneurship and Small Business Management
Attend a free, no-obligation event to learn how UC Berkeley Extension’s new Certificate Program in Entrepreneurship and Small Business Management can help you successfully launch and manage your business. The curriculum benefits aspiring entrepreneurs and small business owners who need to better understand the business and market forces and entrepreneurial theories and practices that help your existing venture prosper. Talk with administrators of the program, and get answers to questions. For more information, see p. 61 or visit extension.berkeley.edu/edu/cert/entrepreneur.html.

EDP 306647
1 meeting
Monday, 5:30–7 pm
May 23
San Francisco: Downtown Center • FREE
Certificate Program in Entrepreneurship and Small Business Management

The Certificate Program in Entrepreneurship and Small Business Management presents a strong instructional foundation for beginning and successfully operating a small business venture. The curriculum spans all stages of small business development, including financial planning and management, marketing strategies, and operational management. The professional certificate’s capstone course teaches you how to finalize your business plan and practice the next steps to executing and managing a successful business. Aspiring entrepreneurs and existing business owners can benefit from this newly developed curriculum to better understand the business and market forces and entrepreneurial practices that can help create and sustain success.

Curriculum Requirements
The curriculum consists of 5 required courses for a total of 9 semester units (141 hours of instruction).

Required Courses
- Introduction to Entrepreneurship/Opportunity Recognition X408.9 (offered every term)
- Marketing Strategies for Entrepreneurs and Small Business Owners X475.5 (offered every term)
- Finances for Entrepreneurs and Small Business Owners X475.6 (offered every term)
- Managing a Small Business Venture: Business Operations, Systems, and Action Planning X443.8 (offered every term)
- Building, Presenting, and Executing a Business Plan X445.5 (offered every term)

Learn More and View the Flyer
extension.berkeley.edu/cert/entrepreneur.html
(510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 312091
Marketing Strategies for Entrepreneurs and Small Business Owners
X475.5 • 2 semester units in Business Administration
A requirement in the Certificate Program in Entrepreneurship and Small Business Management; an elective in the Certificate Program in Marketing
Learn practical ways to plan and execute cost-effective and innovative marketing strategies for entrepreneurs and small business owners. You also learn about new-media marketing, including blogging, viral marketing, video marketing, Twitter, Facebook, LinkedIn, word-of-mouth, networking, creative brainstorming in tandem, and more. Guest speakers are a key component of this course; these successful, proven small-business owners and entrepreneurs share tips, secrets, and strategies to help you gain a competitive edge and attract more quality customers for your business and websites.
EDP 306621
Lorrie Thomas, B.A.
5 meetings
Saturdays, 9 am–4 pm
April 2–April 30
San Francisco: Downtown Center • $675

Finances for Entrepreneurs and Small Business Owners
X475.6 • 1 semester unit in Business Administration
A requirement in the Certificate Program in Entrepreneurship and Small Business Management
Every budding entrepreneur or small business owner needs to know how to leverage fundamental tools; read basic financial statements; understand product costing, initial P&L development, and break-even analysis; manage cash flow; and understand various revenue models. In a hands-on environment, learn how to use integrated Microsoft Excel spreadsheets to develop practical financial projections that are immediately relevant to your business operation.
EDP 306464
Alexander T. McMahon, M.B.A., M.Ed.
6 meetings
Thursdays, 6–9 pm
April 21–May 26
San Francisco: Downtown Center • $575

X443.8 • 2 semester units in Business Administration
A requirement in the Certificate Program in Entrepreneurship and Small Business Management
Learn the critical and practical aspects of managing a small business venture and implementing solutions that work. Focusing on the business owner, you study the skills needed to successfully start and effectively manage a small business, including project management, time management, decision making, and the ability to manage others. In addition to gaining an understanding and appreciation of basic business operations and management systems, you learn how to implement a specific business action plan that focuses on effective management solutions.
EDP 326538
Paul Terry, B.Comm.
10 meetings
Mondays, 6:30–9 pm
March 7–April 4 (also Wednesdays, March 9–April 6, 6:30–9:30 pm)
San Francisco: Downtown Center • $675

NEW THIS TERM
Building, Presenting, and Executing a Business Plan
X445.5 • 3 semester units in Business Administration
A requirement in the Certificate Program in Entrepreneurship and Small Business Management
Participate in a collaborative workshop environment, and review in detail the previously learned steps in the planning process for creating a successful business venture in this capstone course to the Certificate Program in Entrepreneurship and Small Business Management. Work with other students to write, review, critique, and further develop your business planning, writing, and communication abilities. Complete a comprehensive business plan for your own venture using the knowledge you have gained in previous courses, and learn successful strategies to present your business plan to potential investors, partners, and early adopters.
EDP 306506
Tracey Williams, M.S.
15 meetings
Thursdays, 6–9 pm
January 6–April 14
San Francisco: Downtown Center • $995

NEW THIS TERM
From Innovation to Commercialization: The Realization of Business Ideas
X410.4 • 2 semester units in Business Administration
Examine the full product development cycle, beginning with the critical elements of successful idea creation and validation and ending with the distribution of final product. Topics include prototype development, the patent and trademark process, and licensing agreements. From case studies and experienced innovators, learn how to minimize costly mistakes in each step of the new-product-creation process. If you are seriously involved in entrepreneurial innovation, you gain valuable knowledge to help you develop an idea into a successful product.
EDP 306670
John Anderson, M.S.
10 meetings
Wednesdays, 6–9 pm
January 12–March 16
Berkeley: Golden Bear Center • $675

Small Business Management
X105 • 3 semester units in Business Administration
Gain the skills and knowledge you need to start a small business. Learn to coordinate your operations to increase your efficiency. Discover what technologies can help your business compete in the marketplace. Finally, learn how to best represent your business to potential investors and bankers if you are looking to expand.
EDP 877068
Judith L. Forbes, M.B.A., Ph.D.
Enroll anytime
Online • $770

Essentials of Business
If you have no previous business knowledge, this course provides an introduction to the goals, processes, and operations of business enterprises.
For course schedule, see p. 54.

Certificate Program in Project Management
Acquire the skills you need to complete high-quality projects on task, on time, and within budget. Most of our project management courses apply toward professional development units (PDUs) recognized by the Project Management Institute (PMI)®. See p. 87 for complete certificate details.
Free Information Session:
Certificate Program in Finance

Find out how a certificate in finance from UC Berkeley Extension can prepare you for career advancement or an advanced degree. For certificate details, see p. 65 or visit extension.berkeley.edu/cert/finance.html.

EDP 326967
1 meeting
Wednesday, 5–6 pm
March 9
San Francisco: Downtown Center • FREE

Behavioral Finance

X436.7 • 2 semester units in Business Administration

An elective in the Certificate Program in Finance and the professional sequences in Personal Financial Planning and in Wealth Management

Finance and the financial industry touch every person’s life (professional and personal) in a profound way. Look at the financial industry and practice within the context of behavioral theory to understand the psychological aspect and reactions of individuals to financial markets and economic conditions. More than three decades of academic research on how human behavior and psychology affect financial decisions (and thus markets) is beginning to enter the public domain. Learn how this new approach either supports or refutes conventional wisdom.

EDP 316984
Richard Lehman, M.B.A.
10 meetings
Tuesdays, 6:30–9:30 pm
March 22–May 24
San Francisco: Downtown Center • $715

Investment Portfolio Management

X431.2 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Investment Management Specialization

Get an overview of investment management. Topics include modern portfolio theory, fundamental and technical analysis of equities, concentrated equity positions, fixed-income analysis, benchmarking, capital markets, the appropriate use of mutual funds, the importance of asset allocation, IRAs, 401(k)s, and tax-efficient portfolio design. Attention is given to interest rates, inflation, Federal Reserve policies, and general economic policy as it pertains to these topics.

Prerequisite: Basic Corporate Finance X430.1 or equivalent

EDP 316836
Peter Lou, Ph.D.
15 meetings
Mondays and Wednesdays, 6:30–9:30 pm
January 3–March 7 (no meeting January 17, February 21 and 23, and March 2)
San Francisco: Downtown Center • $775

Derivative Securities

X436.4 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Capital Markets specialization

Get an introduction to options, futures, and other derivative securities, and learn a core set of principles that underlie the pricing and use of derivatives. Explore these principles in a series of real-world examples that help you build intuition and familiarity with a broad spectrum of markets and risk management applications. In particular, you cover the valuation and use—both for risk management and for speculation—of forwards, futures, swaps, and options, including the Black-Scholes option-pricing formula, Monte-Carlo valuation, credit derivatives, and financial risk management.

EDP 316919
Tony Yeh, M.B.A., M.Eng.
10 meetings
Wednesdays, 6:30–9:30 pm
January 5–March 9
San Francisco: Downtown Center • $715

Accounting for Managers

Get an overview of financial and cost accounting principles and how they can be used for effective management. Topics include financial statements, income measurement, budgeting, cost allocation, and profit- and cost-center accounting.

For course schedule, see p. 50.

Basic Corporate Finance

X430.1 • 2 semester units in Business Administration

A requirement in the Certificate Program in Accounting, Accounting for Financial and Business Analysts Specialization; an elective in the Certificate Program in Finance

This course serves as a prerequisite for most of the other finance courses offered by UC Berkeley Extension. Get an introduction to the concepts and methods financial managers use to make effective investing and financing decisions, and begin to explore the ways in which value is created and measured. You devote specific attention to the financial management context, the time value of money, risk and return, the cost of capital, the valuation of stocks and bonds, capital budgeting decision analysis tools, the impact of financial leverage on cost of capital and valuation, dividend policy, and an overview of financial statement analysis.

Prerequisites: One course in economics and one in financial accounting or consent of instructor. Basic Financial Mathematics and Financial Calculators, or equivalent skills, is recommended.

Sec. 1 EDP 316950
Patricia Muscatelli, M.B.A., M.S.
10 meetings
Mondays, 6:30–9:30 pm
January 3–March 21 (no meeting January 17 and February 21)
San Francisco: Downtown Center • $715

Sec. 2 EDP 316968
Susanna Wong
10 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
January 11–February 10
Belmont: Belmont Center • $715

Sec. 3 EDP 846493
Marc Hyman, M.B.A.
January 18–April 12
Online, proctored final exam • $735

Sec. 4 EDP 846519
Brad Fox, M.B.A.
January 25–April 19
Online, proctored final exam • $735

Sec. 5 EDP 316976
Instructor to be announced
10 meetings
Thursdays, 6:30–9:30 pm
March 24–May 26
Berkeley: Golden Bear Center • $715
**BUSINESS**

**HANDS-ON**

**Basic Financial Mathematics and Financial Calculators**

0.6 ceu

This workshop provides a one-day, hands-on introduction to the basic mathematics used in finance, including instruction in Microsoft Excel. In-class exercises and problems include bank accounts, mutual fund returns, and home mortgages. **Note:** If you are unsure of your math skills, this class is helpful preparation for Basic Corporate Finance X430.1 and Survey of Personal Financial Planning X433. It is preferred that you bring an HP 12c calculator to class, but the HP 17b, HP 10b, and Texas Instruments BA II Plus are also acceptable.

**Prerequisites:** High school-level algebra.

**Sec. 1 EDP 326561**
Catherine Bradford, M.S., CFP, ChFC
1 meeting
Saturday, 10 am–5 pm
February 26
Berkeley: Golden Bear Center • $290

**Sec. 2 EDP 326579**
Catherine Bradford, M.S., CFP, ChFC
1 meeting
Saturday, 10 am–5 pm
May 7
San Francisco: Downtown Center • $290

**Intermediate Corporate Finance**

X444.1 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance

This course, a continuation of Basic Corporate Finance X430.1, rounds out the comprehensive overview of corporate finance topics and examines the concepts, techniques, and tools that financial managers use in their attempts to make effective investing, financing, and working capital management decisions. You devote specific attention to advanced capital budgeting topics, financing decisions, working capital management, and multinational finance.

**Prerequisites:** Basic Corporate Finance X430.1. You should also be proficient with computer spreadsheets and basic financial mathematics and financial calculators.

**Sec. 1 EDP 326090**
Peter H. Lou, M.B.A., CFA
10 meetings
Mondays, 6:30–9:30 pm
March 28–June 6 (no meeting May 30)
San Francisco: Downtown Center • $715

**Sec. 2 EDP 89761**
Lawrence Cox, B.S., M.B.A.
**Enroll anytime**
Online, proctored final exam • $715

**Advanced Corporate Finance**

X431.5 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Corporate Finance Specialization

Apply essential financial tools and techniques in a series of case studies selected to illustrate the analysis of critical corporate finance decisions. The cases deal with topics such as valuation, capital issues, dividend policy, mergers and acquisitions, derivative instruments and risk management, and ethical issues. The case studies further examine the theoretical concepts and models of finance and how they apply to realistic situations.

**Prerequisites:** Basic Corporate Finance X430.1 and Intermediate Corporate Finance X444.1. You should also be proficient with computer spreadsheets and financial calculators.

**Sec. 1 EDP 326058**
Tony Yeh, M.B.A.
10 meetings
Tuesdays, 6:30–9:30 pm
March 15–May 17
San Francisco: Downtown Center • $715

**Sec. 2 EDP 897801**
David Byrne, Ph.D.
**Enroll anytime**
Online, proctored final exam • $715

**Business Valuation**

X431.9 • 2 semester units in Business Administration

A requirement in the certificate programs in Finance, Corporate Finance Specialization, and in Accounting, Accounting for Financial and Business Analysts Specialization; an elective in the Professional Sequence in Personal Financial Planning

Learn to apply financial and economic theory to investment, financing, and dividend decisions in order to identify ways to maximize shareholder returns. Practical methods to determine costs of capital, total invested capital, free cash flow, and economic profits are used in the valuation analysis for mergers and acquisitions, divestitures, capital budgeting, initial public offerings/private placements, leveraged buyouts, performance-based executive compensation, agency costs, control premiums/costs of marketability, and real options.

**Prerequisites:** Basic Corporate Finance X430.1, Introduction to Financial Accounting X8102A, Accounting for Managers X421.5, or consent of instructor and professional experience.

**Sec. 1 EDP 316992**
Robert Coackley, B.S.
10 meetings
Wednesdays, 6:30–9:30 pm
January 5–March 16 (no meeting February 16)
San Francisco: Downtown Center • $715

**Sec. 2 EDP 326017**
Robert Coackley, B.S.
10 meetings
Tuesdays, 6:30–9:30 pm
March 29–May 31
San Francisco: Downtown Center • $715

**Sec. 3 EDP 897108**
Donald R. Byrne, M.B.A., Ph.D.
**Enroll anytime**
Online, proctored final exam • $715

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**FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU**
Certificate Program in Finance

The UC Berkeley Extension Certificate Program in Finance is an integrated sequence of courses that gives you a broad, thorough, and up-to-date foundation in finance and the practical tools needed to thrive as an effective financial investment manager or analyst. This professional certificate employs materials and techniques that are consistent with modern principles and best practices, providing knowledge and skills that you can use immediately. It offers the advantage of a curriculum overseen by an advisory board of business and education leaders and taught by working professionals with many years of practical business experience.

Curriculum Requirements
The curriculum consists of 4 required core courses, 3 required specialization courses, and 1 elective for a total of 16 semester units (240 hours of instruction).

Required Core Courses
• Intermediate Corporate Finance X444.1 (offered spring and fall terms and online)
• Corporate Financial Analysis and Modeling X435.6 (offered spring and fall terms and online)
• Fundamentals of Risk Management X436.5 (offered spring and fall terms and online)
• International Finance X430.8 (offered spring and fall terms and online)

Corporate Finance Specialization
• Advanced Corporate Finance X431.5 (offered spring term and online)
• Financial Statement Analysis X419.2 (offered spring and summer terms and online)
• Business Valuation X431.9 (offered spring and summer terms and online)

Investment Management Specialization
• Investment Portfolio Management X431.2 (offered spring and fall terms)
• Options and Other Financial Derivatives X435.1 (offered every term and online)
• Financial Securities Analysis X425.5 (offered spring and fall terms)

Capital Markets Specialization
• Debt Markets and Fixed-Income Investments X436.3 (offered spring term)
• Derivative Securities X436.4 (offered spring and fall terms)
• Advanced Portfolio and Risk Management X436.6 (offered spring and summer terms)

Electives Available This Term
• Advanced Topics in Corporate Financial Modeling X410.7
• Basic Corporate Finance X430.1
• Behavioral Finance X436.7
• Understanding Wealth Management X414.3

Learn More
extension.berkeley.edu/cert/finance.html
(510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 152041
**Options and Other Financial Derivatives**

X435.1 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Investment Management Specialization

Get a comprehensive understanding of how to analyze and use options and other related derivatives. Discuss case studies of real-life examples in class to demonstrate and evaluate equity, index options, and flex options. Through class discussions, you learn about the tools and develop the skills necessary to evaluate and apply options and derivatives for income and investment hedging purposes, as well as income and speculation purposes. No prior knowledge of options and futures markets is assumed.

**Prerequisite:** Basic Corporate Finance X430.1 or equivalent

**Sec. 1** EDP 316901
Amy Hoffman, B.A., CFP
10 meetings
Wednesdays, 6:30–9:30 pm
March 16–May 18
San Francisco: Art and Design Center • $715

**Sec. 2** EDP 897124
Richard Lehman, M.B.A.
Enroll anytime
Online, proctored final exam • $715

**Financial Securities Analysis**

X425.5 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Investment Management Specialization; an elective in the Professional Sequence in Personal Financial Planning

This course provides a solid framework to understand and practice fundamental analysis as it applies to stocks, bonds, and fixed-income securities. Develop analytical tools to analyze a company for investment purposes, and learn guidelines for evaluating purchases of stocks and fixed-income securities. Topics include the theory and purpose of investment, financial statement analysis review, ratio analysis, alternative methods for forecasting corporate profits, valuation techniques, technical analysis, fixed-income research, and portfolio management. The course is intended for those making investment decisions and recommendations, including research assistants, registered representatives, financial planners, and security salespeople. Individual investors can also develop their understanding of security analysis.

**Prerequisite:** Basic Corporate Finance X430.1 or consent of instructor

**EDP 326074**
Wayne Lee Price, M.B.A.
10 meetings
Wednesdays, 6:30–9:30 pm
March 16–May 18
San Francisco: Downtown Center • $715

**Fundamentals of Finance**

Gain an understanding of financial management so you can apply financial tools to business decisions.

For course schedule, see p. 54.

**International Finance**

X430.8 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance

This course covers international finance from both corporate and international banking viewpoints, as well as financial constraints on international business and differences between domestic and international environments. You examine the international monetary system, the differences between foreign trade and foreign investments, international sales terms, measurement and management of foreign-exchange exposure, international financial markets and banking, import/export financing, current-asset management, and international taxation.

**Prerequisite:** Basic Corporate Finance X430.1 or equivalent

**Sec. 1** EDP 326553
Reggie Murray, Ph.D.
10 meetings
Mondays, 6:30–9:30 pm
January 3–March 21
(no meeting January 17 and February 21)
San Francisco: Downtown Center • $715

**Sec. 2** EDP 897629
Grace Kalil, M.B.A.
Enroll anytime
Online, proctored final exam • $715

**Fundamentals of Risk Management**

X436.5 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance; an elective in the Professional Sequence in Personal Financial Planning

Learn the fundamentals of financial risk management as it is practiced by corporate treasury staffs and investment managers. You focus on current theory, best practices, and financial products that can be used for risk mitigation. You get an introduction to this highly technical field with the purpose of developing an understanding of the primary objectives of risk management and gain insight into the risk-mitigation process.

**Sec. 1** EDP 326181
Tony Yeh, M.B.A.
10 meetings
Mondays and Wednesdays, 6:30–9:30 pm
April 20–May 25 (no meeting April 25)
San Francisco: Downtown Center • $715

**Sec. 2** EDP 846386
Lawrence Cox, M.B.A.
January 18–April 12
Online, proctored final exam • $725

**Advanced Portfolio and Risk Management**

X436.6 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Capital Markets Specialization

Learn to manage financial risk from the standpoint of both the corporation and the financial institution. Study risk identification and risk-mitigation techniques for the management of cash flow and portfolio value. Review advanced techniques such as Monte-Carlo simulation and state-based risk mapping. Participate in class discussions on the latest developments in financial products and the capital markets as they pertain to financial risk management.

**EDP 326256**
Instructor to be announced
10 meetings
Thursday, 6–9 pm
January 13–March 17
Berkeley: Golden Bear Center • $715

**Debt Markets and Fixed-Income Instruments**

X436.3 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Capital Markets Specialization

Learn to analyze debt instruments and their derivatives, including money-market instruments, government bonds, repurchase agreements, interest-rate swaps, mortgage-backed securities (MBS), corporate bonds, and credit derivatives. Examine the best ways to invest using these instruments and how they are issued. You emphasize analysis, pricing, and hedging during the course.

**EDP 326975**
Instructor to be announced
10 meetings
Tuesday, 6:30–9:30 pm
March 15–May 17
San Francisco: Downtown Center • $750

**HANDS-ON Advanced Topics in Corporate Financial Modeling**

X410.7 • 2 semester units in Business Administration

An elective in the Certificate Program in Finance

Designed to provide a broad overview of current practices in financial modeling and data analysis, this hands-on course teaches you to access and manipulate financial data and to perform analysis using various analytical tools. Some course topics include discounted cash-flow analysis, financial statement analysis, cash-flow estimation, simple and multiple regressions, financial options and other derivatives, and international financial management.

**Prerequisite:** Financial Analysis and Modeling X435.6 or consent of instructor

**EDP 326066**
Instructor to be announced
10 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
April 26–May 26
San Francisco: Downtown Center • $730
Free Information Session: Certificate Program in Human Resource Management

Discover how UC Berkeley Extension’s professional certificate, approved by the Human Resource Certification Institute, can help you make the most of growing opportunities in human resource management. For more information about the certificate, see p. 69 or visit extension.berkeley.edu/cert/hrm.html.

ONLINE COURSE INFORMATION

(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/subject/hr.html

ONLINE COURSE INFORMATION

(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Human Resources

Talent Management and Workforce Development

X493.9 • 2 semester units in Business Administration
A requirement in the Certificate Program in Human Resource Management
Talent management is critical to the success of any organization. It has evolved beyond the hiring and firing of employees to cover all elements of human capital strategy, from employee selection, retention, performance management, and compensation to succession planning, diversity, and more. This course, intended for professionals who manage talent across a broad spectrum of organizations, surveys the core elements of talent management and teaches you how to develop effective talent management systems within your organization.

EDP 306258
Resa Peay-Wainwright, B.A.
10 meetings
Tuesdays, 6–9 pm
January 4–March 8
San Francisco: Downtown Center • $675

Total Compensation

X493.8 • 2 semester units in Business Administration
A requirement in the Certificate Program in Human Resource Management
Compensation, as well as benefits programs, needs to reflect the changing business landscape and unprecedented organizational challenges. Study total compensation and rewards programs that address a range of monetary and nonmonetary options that extend beyond salary compensation and benefits for employees. Learn how to integrate total compensation packages with other basic human resources functions, including recruitment, performance contributions, development, and retention.

EDP 306266
Resa Peay-Wainwright, B.A.
10 meetings
Thursdays, 6–9 pm
January 6–March 10
San Francisco: Downtown Center • $675

Effective Performance Management

X452.3 • 2 semester units in Business Administration
A requirement in the Certificate Program in Human Resource Management
Get an overview of performance management, including its definition, benefits, and how it is applied in most organizations. If you are a manager or supervisor in a company of any size and want to learn more about performance management, this course teaches you how to implement a successful program or partner with line managers to enhance the process. You learn how to develop effective performance management systems that involve goal-setting, coaching and feedback, motivation, measuring performance against goals, performance appraisals, and employee development.

EDP 306134
Aubrey Cramer, M.S.
10 meetings
Wednesdays, 6–9 pm
January 5–March 9
San Francisco: Downtown Center • $675

Human Resource Systems and Technology

X482.2 • 2 semester units in Business Administration
A requirement in the Certificate Program in Human Resource Management
Explore the strategic role of human resources systems in the effective management of an organization. You learn practical tools to develop a plan to use technology more effectively in the human resources department. You must have a basic understanding of computers and must be comfortable using the Internet to search and perform basic browsing activities. This course is completely paperless; to succeed, you must bring a laptop with WiFi capability to every class.

EDP 306738
Jun Cruzat, M.S.
9 meetings
Mondays, 6–9 pm
January 3–January 24 (also Mondays, January 31–March 14, 6–9:30 pm; no meeting January 17 and February 21)
Berkeley: Golden Bear Center • $675

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Employee Relations
X454.4 • 1 semester unit in Business Administration
A requirement in the Certificate Program in Human Resource Management
Examine current legal and social issues that affect employee relations, as well as the practical actions to deal with them. You learn a variety of key concepts, including communications, counseling, performance management, reward and recognition, work and family issues, employee assistance, sexual harassment, diversity management, and ways to handle formal complaints and discipline. The course format includes lectures and discussions, guest speakers, interactive exercises, case studies, and readings.
EDP 306118
Susan J. Gallagher, M.S.
6 meetings
Wednesdays, 6:30–9:30 pm
January 5–February 9
San Francisco: Downtown Center • $575

Employee Recruitment, Selection, and Placement
X450.8 • 2 semester units in Business Administration
A requirement in the Certificate Program in Human Resource Management
Develop in-depth employee-selection interviewing skills, and learn about the human resources function of selecting and placing employment candidates. Through extensive in-class practice and mock interviews, you learn how to identify and define selection standards, develop probing primary and secondary interview questions, and evaluate candidates. Topics include systematic approaches to finding candidates, standardizing selection interviews, and making hiring decisions. The course also offers techniques for recruiters who manage multiple openings.
EDP 306126
Nicole Jackson, M.S.
5 meetings
Saturdays, 9 am–4 pm
April 9–May 7
San Francisco: Downtown Center • $675

HR Metrics: Measuring and Analyzing Human Capital
X496.9 • 2 semester units in Business Administration
An elective in the Certificate Program in Human Resource Management
Learn to assess and measure employee and organizational performance to gain an understanding of the scope of your human capital investments. Learn to develop and make critical HR recommendations to senior management and key decision makers. You gain the skills to formulate both qualitative and quantitative recommendations that affect key management decisions.
EDP 306381
Toni Wilson, B.S.
10 meetings
Tuesdays, 6–9 pm
January 4–March 8
San Francisco: Downtown Center • $675

Employment Law
X455.2 • 2 semester units in Business Administration
An elective in the Certificate Program in Human Resource Management
The complexities of the issues surrounding human resource management necessitate a good understanding both of the interrelationship between state and federal legislation and court decisions and of the daily activities of the human resources function. This course explores issues that affect workplace policies, such as the Americans with Disabilities Act, AIDS, alcohol and drugs, sexual harassment, privacy rights, and related matters.
EDP 306696
Linda Chan, J.D.
5 meetings
Saturdays, 9 am–4 pm
April 2–May 21 (no meeting April 9, April 16, and May 7)
San Francisco: Downtown Center • $675

Training and Learning in Organizations
X499.1 • 2 semester units in Business Administration
An elective in the Certificate Program in Human Resource Management
Today’s business world is lean and mean, with fewer employees, fewer levels of management, and increased global competition. In this environment, it is imperative that performance and productivity deliver the results that allow organizations to achieve their strategic goals. As a result, the training and human resource development function is also rapidly changing and being asked to make a larger contribution to the organization’s success. In this new role, training and HR development practitioners focus on roles, methods, and techniques that help organizations directly link the development and training of people to business results and organizational effectiveness.
EDP 306498
Richard Ragan, M.S., CPT, Extension Honored Instructor
8 meetings
Saturdays, 9 am–4 pm
March 12 and April 23 (also Tuesdays, March 15–19, 6–9 pm)
Berkeley: Golden Bear Center • $675

Employee Benefit Plans
X450 • 2 semester units in Business Administration
An elective in the Certificate Program in Human Resource Management
Get a general introduction to employee benefit plans. Study the most common types of discretionary benefits, and learn how they are selected and administered. The instructor outlines legal requirements, administrative problems, and available options, as well as government-mandated plans such as workers’ compensation and Social Security. You examine important policy issues on sick leave, vacation, jury duty, and leaves of absence and learn how they are related to organizational culture and policy. You pay special attention to the effects of tax reform in benefits planning.
EDP 897157
Richard K. Takahashi, M.B.A.
Enroll anytime
Online • $695

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Certificate Program in Human Resource Management

The Certificate Program in Human Resource Management is designed to help human resource professionals develop the knowledge, methods, and skills necessary to meet the challenges of today’s changing workplace and workforce. With courses developed by top HR professionals and approved for recertification credits by the HR Certification Institute, the certificate prepares you to be your organization’s internal consultant and strategic business partner.

Curriculum Requirements
The curriculum consists of 7 required core courses and 2 electives for a total of 17 semester units (258 hours of instruction).

Required Courses
- Essentials of Human Resources X450.1 (offered every term and online)
- Employee Recruitment, Selection, and Placement X450.8 (offered every term)
- Effective Performance Management X452.3 (offered spring and fall terms)
- Total Compensation X493.8 (offered every term)
- Human Resource Systems and Technology X482.2 (offered every term)
- Talent Management and Workforce Development X493.9 (offered every term)
- Employee Relations X454.4 (offered every term)

Electives Available This Term
- Employee Benefit Plans X450
- Employment Law X455.2
- HR Metrics: Measuring and Analyzing Human Capital X496.9
- Training and Learning in Organizations X499.1

Learn More and View the Brochure
extension.berkeley.edu/cert/hrm.html
(510) 642-4231
business@unex.berkeley.edu

Enroll using EDP 152058
**BUSINESS**

**Law**

**Intellectual Property Law**
X412 • 2 semester units in Business Administration

Examine patent, copyright, trademark, and trade-secret law in the high-tech commercial sector. You pay special attention to the Internet, software licensing, recent technological developments, and recent trends in the legislative and legal arenas. Anyone involved in the creation, acquisition, use, sale, marketing, licensing, and ownership of intellectual property can benefit greatly from this course.

EDP 897066
Brien C. Walton, LL.M., J.D.
Enroll anytime
Online • $715

**Paralegal Studies**

**Essential Paralegal Studies Part I: Foundational Skills**
X418 • 2 semester units in Law

A requirement in the Paralegal Studies Program

Study the foundational paralegal qualities most sought by attorneys and law firms. Learn various aspects of paralegal skills, including legal terminology, court structure, legal ethics, evidence, investigation, interviewing, analysis, and other areas relevant to becoming an excellent paralegal. Note: Online section must be completed within three months of enrollment date.

Sec. 1 EDP 306274
Tod I. Zuckerman, J.D.,
Extension Honored Instructor
10 meetings
Tuesdays, 6–9 pm
March 29–May 31
San Francisco: Downtown Center • $1,550

Sec. 2 EDP 306944
Tod I. Zuckerman, J.D.,
Extension Honored Instructor
10 meetings
Mondays, 6–9 pm
March 21–May 23
Berkeley: Golden Bear Center • $1,550

Sec. 3 EDP 317073
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $1,750

**Principles of Business Law**
X410.1 • 2 semester units in Business Administration

**COURSE INFORMATION**
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/subject/law.html

**ONLINE COURSE INFORMATION**
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

A requirement in the Certificate Program in Accounting, Accounting for Controllers Specialization

People who want to be successful in business or real estate need to know how to deal with legal issues and when to refer questions to an attorney. Learn to identify the issues and know when you have a legal problem—and, if so, what it is. You survey California law to better understand its jurisdiction and procedures under its court system. You also study basic principles of the laws of contracts, agency, partnership, corporations, and limited liability companies, as well as employment and intellectual property.

EDP 846279
Jason Lum, J.D.
January 18–April 12
Online • $735

**Harnessing Powerful Technology to Excel in the New Legal Information Age**
X425 • 2 semester units in Law

Dramatically higher legal requirements, combined with information overload and recessionary business trends, create an acute need for effective legal information management. Learn how to use information technology in every legal practice area to meet the needs of courts and clients. Meet these new challenges by exploring the creation and use of technology that is accessible, free, automatically backed up, and upgraded. Designed for anyone working in the legal industry, this course gives you the necessary skills to cost-effectively manage increasing amounts of information with ever-powerful information-management tools.

EDP 306332
Jonathan Van Ee, J.D.
5 meetings
Saturdays, 9 am–4 pm
February 26–March 26
Berkeley: Golden Bear Center • $675
**Essential Paralegal Studies Part II: Authority, Research, and Writing**

**X419** • 2 semester units in Law

*An elective in the Paralegal Studies Program*

Study the advanced paralegal skills most sought by attorneys and law firms. Learn all aspects of advanced paralegalism, including legal research, legal writing, breaking rules into elements, applying rules to facts, pleading preparation, discovery coordination, digesting discovery documents, filing maintenance, billable hours, form manipulation, electronic research, motion preparation, and other areas relevant to becoming an excellent paralegal. **Note:** Online section must be completed within three months of enrollment date.  

**Prerequisite:** Essential Paralegal Studies Part I: Foundational Skills X418

**Sec. 1 EDP 316265**  
Instructor to be announced  
5 meetings  
Saturdays, 9 am–5 pm  
January 8–February 12 (no meeting January 15)  
Belmont: Belmont Center • $1,550

**Sec. 2 EDP 306746**  
Tod I. Zuckerman, J.D., Extension Honored Instructor  
5 meetings  
Saturdays, 9 am–4 pm  
January 8–March 12 (no meeting January 15 and 29, February 12 and 19, and March 5)  
San Francisco: Downtown Center • $1,550

**Sec. 3 EDP 306399**  
Tod I. Zuckerman, J.D., Extension Honored Instructor  
10 meetings  
Wednesdays, 6–9 pm  
January 12–March 16  
Berkeley: Golden Bear Center • $1,550

**Sec. 4 EDP 317081**  
Tammi Clearfield, J.D., M.S.  
Enroll anytime  
Online • $1,750

**Paralegal Tort Law**

**X403** • 1 semester unit in Law

*An elective in the Paralegal Studies Program*

Get an overview of personal injury, product liability, and malpractice law. Examine the intentional torts of battery, assault, false imprisonment, intentional infliction of mental distress, trespass to chattel, trespass to property, and conversion, as well as analysis of negligence, breach of duty, causation and damages, liability issues and defenses, and malpractice. **Note:** Online section must be completed within two months of enrollment date.

**Sec. 1 EDP 306878**  
Larry Sagor, J.D.  
5 meetings  
Mondays, 6–9 pm  
March 21–April 18  
Berkeley: Golden Bear Center • $795

**Sec. 2 EDP 307991**  
Tammi Clearfield, J.D., M.S.  
Enroll anytime  
Online • $875

**Paralegal Contract Law**

**X405** • 1 semester unit in Law

*An elective in the Paralegal Studies Program*

Learn how to form effective legal contracts, how contracts are performed, the remedies for nonperformance or breach of contract, and third-party contracts. Contracts are involved in virtually every field of law, and the contract drafting, analysis, and litigation skills you learn in this course can be applied to a wide variety of legal situations. You examine different kinds of contracts and draft a contract as part of your study. **Note:** Online section must be completed within two months of enrollment date.

**Sec. 1 EDP 306282**  
Tod I. Zuckerman, J.D., Extension Honored Instructor  
5 meetings  
Wednesdays, 6:30–9:30 pm  
March 16–April 13  
San Francisco: Downtown Center • $795

**Sec. 2 EDP 317032**  
Tammi Clearfield, J.D., M.S.  
Enroll anytime  
Online • $875

**Paralegal Studies Program**

Make the most of your professional opportunities with UC Berkeley Extension’s Paralegal Studies Program. Designed by paralegals for paralegals and taught by practicing attorneys approved by the University of California, Berkeley, the program offers the skills and knowledge to become a practicing paralegal. In as little as six months, you can fulfill California’s requirements for paralegals and take the next step in your career. Two convenient learning formats enable you to continue working while you complete the program. Proceed at your own pace with the online program, which you can begin anytime, or choose the hybrid format, a combination of classroom and online study. Locations in San Francisco, Belmont, and Berkeley make classroom learning convenient wherever you live or work. For the education you need to succeed as a paralegal in the Bay Area and beyond, come to UC Berkeley Extension.

**Curriculum Requirements**

The curriculum for both hybrid and online programs consists of 2 required courses and 4 electives for a total of 8 semester units (360 hours of instruction).

**Required Courses**

- Essential Paralegal Studies I: Foundational Skills X418 (offered every term and online)
- Essential Paralegal Studies II: Authority, Research, and Writing X419 (offered every term and online)

**Electives Available This Term**

- Paralegal Tort Law X403
- Paralegal Business Law X404
- Paralegal Contract Law X405
- Paralegal Criminal Law X406
- Paralegal California Procedures X407
- Paralegal Family Law X410
- Paralegal Intellectual Property Law X409

Learn More and View the Brochure

text.extension.berkeley.edu/spos/paralegal.html  
(510) 642-4231

Enroll using EDP 302687

Statement Regarding California Regulatory Requirements

The UC Berkeley Extension online and hybrid Paralegal Studies Program is in compliance with California Business & Professions Code §4550 through §456. The California regulations require that a paralegal program offer either 24 semester units or an equivalent amount of hours related to law. This program meets or exceeds the regulatory standard of 360 classroom hours. In addition, students earn up to 8 semester units of academic credit for the program.
Mediation and Conflict Resolution Seminar

4.0 ceu • 40 hours MCLE credit for attorneys (3 hours Ethics) • 40 hours CE credit: BRN, LCSW/MFT, and psychologists

The Award of Completion satisfies training requirements for most court and agency mediation programs.

Do you want to successfully resolve business disputes with confidence? With courts clogged and lawsuits and business conflict on the rise, mediation skills can become an essential part of your skill set. In this intensive 40-hour training, you gain the ability and confidence to resolve almost any business dispute as a mediator, negotiator, or representative. Through lecture, discussion, dispute simulations, and video, you learn the skills and strategies of a successful mediator. A complete set of model forms for your practice or program is also included.

EDP 316703
Teresa Carey
5 meetings
Saturdays, 9 am–5 pm
January 29–March 5
(no meeting February 19)
Berkeley: Golden Bear Center • $395

Paralegal Business Law

X404 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Gain an accessible and straightforward understanding of the law of business organizations. Study relevant examples from the day-to-day practices of business lawyers and their paralegals. You learn the four basic business organizations: sole proprietorships, partnerships, corporations, and limited liability companies.

Note: Online section must be completed within two months of enrollment date.

Sec. 1 EDP 306894
Instructor to be announced
3 meetings
Saturdays, 9 am–3 pm
April 23–May 7
Berkeley: Golden Bear Center • $795

Sec. 2 EDP 317024
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Intellectual Property Law

X409 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Explore trademark, copyright, and patent law as it relates to a paralegal’s role within intellectual property representation. By the end of the course, you gain the quantifiable skills in the area of intellectual property law to function under an attorney’s supervision. Specifically, you learn terminology relevant to the area of intellectual property law and are able to identify the elements of trademark procedures, including infringement. Learn to identify the elements of copyright procedures, including patent application, ownership, transfer, and infringement.

Note: Online section must be completed within two months of enrollment date.

Sec. 1 EDP 306456
Emmalena Quesada, J.D.
5 meetings
Mondays, 6–9 pm
March 28–April 25
San Francisco: Downtown Center • $795

Sec. 2 EDP 317065
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Criminal Law

X406 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Learn how to assist a criminal attorney as a paralegal. You study substantive and procedural criminal law and learn to identify the elements of and defenses against criminal charges. You learn about levels of criminal intent, the rationale of criminal law, the purpose of criminal punishment, and the role that the U.S. Constitution plays in the criminal justice system.

Note: Online section must be completed within two months of enrollment date.

EDP 307983
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Family Law

X410 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Learn the paralegal’s role in a family law practice. Topics covered include jurisdictional issues, child custody and visitation matters, child support issues, property rights and division, and spousal support considerations. You also examine issues of traditional marriage and alternative marriage, as well as paternity proceedings, adoption, and surrogacy rights.

Note: Online section must be completed within two months of enrollment date.

EDP 317016
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875
Leadership and Management

FREE INFORMATION SESSION: CERTIFICATE PROGRAM IN LEADERSHIP AND MANAGEMENT

Find out how this UC Berkeley Extension professional certificate can help you build the essential skills for effective management that can make a tangible difference in your career. For information about the program, see p. 75 or visit extension.berkeley.edu/cert/mgt.html.

EDP 306712
1 meeting
Monday, 5:30–7 pm
March 16
San Francisco: Downtown Center • FREE

Effective Leadership and Management: Understanding and Influencing the Dynamics of Organizations
X498.4 • 2 semester units in Business Administration
A requirement in the Certificate Program in Leadership and Management

Learn how to apply concepts and strategies to navigate and influence your organization’s behavior. By understanding how individual and organizational behavior impact the achievement of business goals, you can increase your employees’ and company’s overall performance. Discover a tactical versus strategic approach to address challenges, and learn concrete skills to improve your ability to lead teams and achieve business goals. Note: As part of the course requirements, you are required to take an assessment, offered at a discounted price of $98, to help understand your leadership style as well as the need to understand and respect individual differences.

EDP 306415
Barbara Miller, M.A.
10 meetings
Wednesdays, 6–9 pm
March 23–May 25
San Francisco: Downtown Center • $675

NEW THIS TERM
Organizational Communication Strategies for Managers
X498.9 • 2 semester units in Business Administration
A requirement in the Certificate Program in Leadership and Management

Gain the skills needed to communicate effectively in a complex business environment. Learn how to be flexible so you can communicate both upstream and downstream, as well as with vendors, clients, stakeholders, and other partner organizations from a variety of business cultures. Study communication theory, review case studies, discuss topical communication issues from the weekly news, and practice communication strategies that you can apply right away in your current position or as preparation for your advancement goals.

EDP 306522
Lorrie Thomas, B.A.
10 meetings
Thursdays, 6–9 pm
March 17–May 19
Berkeley Campus: 155 Barrows Hall • $675

Business Negotiating
X451.3 • 2 semester units in Business Administration
A requirement in the Certificate Program in Leadership and Management

Don’t get mad. Don’t get even. Get what you want. Learn the strategies and tactics needed to influence others and reach long-lasting, profitable agreements. This highly interactive course teaches you successful negotiation skills through role play and case studies from real life, giving you the knowledge and experience to handle difficult conversations, communicate with people from different cultures, uncover hidden value, discover optimal job interview techniques, and negotiate salary. In short, you learn techniques to overcome obstacles that prevent you from reaching your goals.

Sec. 1 EDP 306167
Terence K. Hird, M.B.A.,
Extension Honored Instructor
10 meetings
Mondays, 6–9 pm
January 3–March 21
(no meeting January 17 and February 21)
San Francisco: Downtown Center • $675

Sec. 2 EDP 306159
Terence K. Hird, M.B.A.,
Extension Honored Instructor
5 meetings
Saturdays, 9 am–4 pm
January 8–February 12 (no meeting January 15)
Berkeley: Golden Bear Center • $675

NEW THIS TERM
Leadership, Influence, and Power in Organizations
X499.3 • 2 semester units in Business Administration
A requirement in the Certificate Program in Leadership and Management

Explore how leaders use power and influence to achieve organizational commitment and effectiveness. Discuss topics of organizational culture, appropriate types of power, influence with and without authority, business ethics, and effective goal setting and planning. Research and case studies about the global economy, Silicon Valley innovation, and current events provide you with tools for developing personal leadership skills and styles.

EDP 306514
Elie Asmar, M.S.E., PMP, CKM,
Extension Honored Instructor
10 meetings
Tuesdays, 6:30–9:30 pm
March 29–May 31
San Francisco: Art and Design Center • $675

Managing Change and Ambiguity in the Workplace
X411.9 • 1 semester unit in Business Administration
A requirement in the Certificate Program in Leadership and Management; an elective in the Professional Program in Agile Management

Learn valuable insights on how to foster good will and commitment during times of transition to create and maintain a high-performance organization. Discover how to design and manage change more effectively, gain an awareness of principles used to address people’s readiness and capability for change, and learn how to make people more receptive to and prepare for change. Bring an example of an organizational change in which you have been involved as your case study. This example could be an initiative that you have led, participated in, or observed. Learn to apply the principles of change management to your specific case.

EDP 306357
Anna Ewins, Ph.D.
2 meetings
Saturdays, 9 am–5:30 pm
April 16 and May 7
San Francisco: Art and Design Center • $525

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Essentials of Management
X475.4 • 2 semester units in Business Administration
An elective in the Certificate Program in Leadership and Management
Survey the history of the management field; explore the planning, organizing, leading, and controlling dimensions of the manager’s job; and analyze the transition that takes place as an individual professional takes on a management position. You also learn key interpersonal and managerial skills.

Sec. 1 EDP 306217
Gene Hendrix, Ph.D., Extension Honored Instructor
9 meetings
Thursdays, 6–9 pm
January 6–January 20 (also Thursdays, January 27–March 3, 6–9:30 pm)
San Francisco: Downtown Center • $675

Sec. 2 EDP 306225
Gene Hendrix, Ph.D., Extension Honored Instructor
5 meetings
Saturdays, 9 am–4 pm
February 26–March 26
Belmont: Belmont Center • $675

Public Service Leadership Boot Camp
X478.3 • 2 semester units in Business Administration
Interested in becoming an effective leader, organizer, or candidate in your community? This course is for people who hear a call to service and seek a road map to transform dreams into actions through social networks, nonprofits, and political campaigns. Taught by author and activist Christine Pelosi, the boot camp course is made up of short, concentrated lessons that hone your skills in the key areas of message, management, mobilization, and money. Connect with other aspiring community leaders influencing public policy. This course is offered in partnership with the Bay Area Business Roundtable.

EDP 316695
Christine Pelosi, J.D., B.S.F.S.
10 meetings
Tuesdays, 6:30–9:30 pm
January 18–March 22
San Francisco: Downtown Center • $395

Moving On Up: Women and Leadership
X474.1 • 2 semester units in Business Administration
An elective in the Certificate Program in Leadership and Management
Learn practical and simple techniques to become an effective leader. Explore Equilibrium Dynamics, a practical approach to emotional competence. Examine strategies to help advance your career, including how to create a communicative and collaborative environment, build teams and capitalize on better retention and improved performance, communicate across ethnic and generational differences, and use intuition to build confidence. Through lecture, discussion, and interactive exercises, learn skills, strategies, and techniques that help you excel and advance in today’s workplace and apply high standards of ethical practice and compassionate leadership.

EDP 306472
Amy Levine, Ed.D.
10 meetings
Thursdays, 6:30–9:30 pm
March 10–May 12
San Francisco: Downtown Center • $625

NEW THIS TERM
Coaching Skills and Practices for Business Leaders and Management Professionals
X404.8 • 1 semester unit in Business Administration
Learn the requirements and language of coaching within a complex system. Examine the ethical and practical challenges of serving both the individual and the client organization and the specifics of contracts. Learn how to structure a coaching relationship and define return on investment for a project. Study the benefits of a range of intake and assessment tools and establish, conduct, and complete two coaching engagements: one with a peer coach and one with an organizational client who manages at least two direct reports.

EDP 316216
Barbara Russo, B.A.
3 meetings
Saturdays, 9 am–4 pm
April 2 and April 9 (also Saturday, April 16, 9 am–5 pm)
Berkeley: Golden Bear Center • $525

Design Thinking: Inspire, Inform, and Transform
X475.8 • 1 semester unit in Business Administration
(formerly Design Thinking for Better Innovation)
An elective in the Certificate Program in Leadership and Management
Learn the process of design thinking, a creative problem-solving approach designed to advance meaningful and human-centered innovation and decrease risks and costs. Acquire and apply the design-thinking framework as taught by the d.school (Institute of Design at Stanford) and learn how to formulate tangible solutions in a team-oriented process. Discover how design thinking inspires and informs aspects of the innovation process in a variety of fields, including product development, business and marketing, and education.

EDP 306704
Helene Cahan, M.A.
2 meetings
Saturdays, 8:30 am–5:30 pm
May 14 and May 21
San Francisco: Downtown Center • $525

Leading Across the Generations
0.8 ceu
The generation gap has become the generation chasm, with four generations coexisting in today’s workforce: seniors, boomers, Generation Xers, and millennials. Each generation has different work styles, values, and expectations. Leaders must understand each group in order to recruit, retain, build intergenerational teams, and communicate effectively across the generations. Team members must understand how to work effectively with their colleagues to achieve personal and organizational goals. HR staff must understand how to adapt systems to appeal across the generations. This workshop offers concrete strategies that you can apply immediately.

EDP 306407
Barbara Miller, M.A.
1 meeting
Thursday, 8:30 am–5:30 pm
February 17
San Francisco: Art and Design Center • $395
Certificate Program in Leadership and Management

Get the necessary training to successfully lead and manage people in organized settings. Courses in how to build managerial excellence equip you to better understand the latest principles, strategic concepts, philosophies, and advanced applications in management and leadership. Instructors from the business world share their leadership knowledge and strategies. Gain the skills to take on higher-level job responsibilities and develop a big-picture view of management. Learn to communicate more effectively and become a better manager of people. The Certificate Program in Leadership and Management helps improve your advancement opportunities even if you are not in a formal management role.

Curriculum Requirements
The curriculum consists of 5 required courses and 2 electives for a total of 13 semester units (195 hours of instruction).

Required Courses
• Business Negotiating X451.3 (offered every term)
• Effective Leadership and Management: Understanding and Influencing the Dynamics of Organizations X498.4 (offered every term)
• Leadership, Influence, and Power in Organizations X499.3 (offered every term)
• Managing Change and Ambiguity in the Workplace X411.9 (offered every term)
• Organizational Communication Strategies for Managers X498.9 (offered every term)

Electives Available This Term
• Business Communication: Writing and Speaking X404.7
• Design Thinking: Inspire, Inform, and Transform X475.8
• Essentials of Management X475.4
• Fundamentals of Finance X412.5
• Introduction to Marketing X460.1
• Managing a Small Business Venture: Business Operations, Systems, and Action Planning X443.8
• Moving on Up: Women and Leadership X474.1
• Organization and Management X490.1

Learn More and View the Brochure
extension.berkeley.edu/cert/mgt.html
(510) 642-4231
business@unex.berkeley.edu

Enroll using EDP 302695
Professional Program in Women and Leadership

The Professional Program in Women and Leadership provides concrete skills for using power and influence successfully in everyday work situations. Designed for women seeking advancement to leadership positions, this three-course sequence encourages women to lead business teams with honesty, respect, courage, and compassion.

Curriculum Requirements
The curriculum consists of 3 required courses for a total of 6 semester units (90 hours of instruction).

Required Courses
• Making Power Moves: Women and Leadership X454.8 (offered fall term)
• Moving on Up: Women and Leadership X474.1 (offered spring term)
• Power and Influence: Women and Leadership X474.8 (offered summer term)

Learn More and View the Flyer
extension.berkeley.edu/spos/womenleaders.html
business@unex.berkeley.edu
(510) 642-4231

Enroll using EDP 312075

Professional Program in Responsible Global Change Management

Get an introduction to the interrelated issues of environmental quality, sustainability, and ecosystem health—presented in language relevant to business, government, and nonprofits alike.

See p. 190 for complete program details.

Professional Program in Sustainability and Energy

Focus on energy use and its impact on the environment. Understand the impact of current energy-use patterns on climate change and of climate change law, such as California’s AB 32, on local government and businesses.

See p. 189 for complete program details.

Professional Program in Sustainability and Transportation

Learn to recognize the benefits of sustainability management, and apply its techniques to improve transportation decision making.

See p. 191 for complete program details.

Organization and Management

Using case studies, small-group discussions, and examples from Bay Area organizations, this course explores issues such as organizational conflict and power, management development, interpersonal influence, and the advantages and drawbacks of participative management.

For course schedule, see p. 54.

Business Communication: Writing and Speaking

Gain experience in drafting a wide range of business communications, including e-mails, memos, letters, and reports. In addition, you give several oral presentations that are videotaped and critiqued in class.

For course schedule, see p. 58.

Accounting for Managers

Get an overview of financial and cost accounting principles and how to use them for effective management. Topics include financial statements, income measurement, budgeting, cost allocation, and profit- and cost-center accounting.

For course schedule, see p. 50.

Agile Management

Through project games, learn how Agile’s planning tools help to address ongoing changes in requirements and show ways to a successful outcome.

For course schedule, see p. 53.

Certificate Program in Project Management

Acquire the skills you need to complete high-quality projects on task, on time, and within budget. Most Extension project management courses apply toward professional development units (PDUs) recognized by the Project Management Institute PMI®.

See p. 87 for complete certificate details.

Certificate Program in Construction Management

Get the knowledge and skills to successfully manage a range of projects, from small residential construction to state-of-the-art facilities.

See p. 127 for complete certificate details.

Professional Program in Leadership in Sustainability and Environmental Management

Study a recognized body of knowledge on the topics of sustainability leadership and change management, environmental law and policy, compliance management systems, and climate change risk-mitigation strategies.

See p. 187 for complete program details.

Professional Program in Corporate Social Responsibility Reporting

Ensure your organization considers sustainability in its decision-making processes, and learn how to effectively articulate its socially responsible practices to key stakeholders.

See p. 186 for complete program details.
Marketing

COURSE INFORMATION
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/subject/marketing.html

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Free Information Session:
Certificate Program in Marketing and Professional Sequences in Marketing Metrics and Integrated Marketing Communications

Find out how UC Berkeley Extension’s Certificate Program in Marketing and the specialized programs of study in Marketing Metrics and Integrated Marketing Communications equip you with a solid understanding of marketing’s most up-to-date concepts and techniques that can enhance your job skills and help you be more effective in this critical business function. For more information about the Certificate Program in Marketing, see p. 79 or visit extension.berkeley.edu/ert/market.html. For more information about the Professional Sequence in Marketing Metrics, see p. 80 or visit extension.berkeley.edu/spos/metrics.html. For more information about the Professional Sequence in Integrated Marketing Communications, see p. 81 or visit extension.berkeley.edu/spos/imc.html.

EDP 306449
1 meeting
Monday, 5:30–7 pm
May 16
San Francisco: Downtown Center • FREE

Introduction to Marketing
X460.1 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing and in Business Administration; an elective in the Certificate Program in Leadership and Management

Learn key information regarding marketing concepts, terminology, and practices that you can use to increase your organization’s profitability. You study consumer, industrial, and service marketing; market selection; product planning; pricing and distribution; and the integration of marketing with other business activities.

Sec. 1 106316
Jim Prost, M.B.A., Extension Honored Instructor
10 meetings
Tuesdays, 6–9 pm
January 4–March 8
San Francisco: Downtown Center • $675

Sec. 2 106324
William Hess, M.A., Extension Honored Instructor
10 meetings
Wednesdays, 6:30–9:30 pm
January 12–March 16
Belmont: Belmont Center • $675

Sec. 3 EDP 306209
Warren L. Brown, M.B.A.
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
Berkeley Campus: 104 Barrows Hall • $675

Sec. 4 EDP 846683
Woody Alexander, M.B.A.
January 18–April 12
Online • $735

Marketing Research:
Concepts and Techniques
X460.6 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing and in the Professional Sequence in Marketing Metrics

Learn to conduct focus groups and surveys, both via the Internet and offline; design questionnaires; interpret data; and present findings. Expect to place special emphasis on using market research to develop new products and improve service, as well as on how to target the most profitable customers.

Sec. 1 EDP 306555
Peter Young, M.A.
10 meetings
Mondays, 6–9 pm
January 3–March 21 (no meeting January 17 and February 21)
San Francisco: Downtown Center • $675

Sec. 2 EDP 846188
Nicki Shovar, Ph.D.
January 18–April 12
Online • $720

Strategic Marketing
X415 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing

Learn to market new and existing products and services for growth and increased profitability. Also learn how to use the latest and most sophisticated marketing strategies to create a sustainable competitive advantage. Topics include strategy formulation, linking strategy and tactics, brand positioning, relationship marketing, thriving in competitive markets, and avoiding commoditization.

Sec. 1 EDP 846675
Suzanne Powers, M.B.A.
September 14–December
January 18–April 12
Online • $720

Sec. 2 EDP 306241
Jim Prost, M.B.A., Extension Honored Instructor
10 meetings
Thursdays, 6:30–9:30 pm
March 17–May 19
San Francisco: Downtown Center • $675

Strategic Marketing 2.0—Social Media and Other Innovative Technologies
X464.5 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing

Master the next generation of strategic marketing planning and tactics made possible by the latest media channels and technologies. Learn how to establish realistic business and performance goals and systematically evaluate new technologies, as well as evaluate in-market results against specific return-on-investment metrics. You also gain the ability to strategically plan and cost-efficiently execute new-channel programs in tandem with more conventional marketing approaches.

Sec. 1 EDP 306613
Peter Young, M.A.
5 meetings
Saturdays, 9 am–5 pm
January 8–February 12 (no meeting February 21)
San Francisco: Art and Design Center • $675

Sec. 2 EDP 846196
Susan Gaide, M.B.A.
January 18–April 12
Online • $720
New Product Development

X405.8 • 2 semester units in Business Administration
An elective in the Certificate Program in Marketing

Learn what it takes to develop a successful new product, using the same book and many of the same techniques in similar courses taught at Stanford and MIT. You study a variety of topics from a DIY perspective so that you learn how to apply concepts such as customer need identification, concept generation and selection, product design, patents, and market introduction to real-world situations. The instructor uses readings, case studies, videos, and venture capital and intellectual property guest speakers to create a vibrant learning experience.

EDP 306373
Stephan Sorger, M.S., M.B.A.
5 meetings
Saturdays, 9 am–5 pm
February 26–March 26
San Francisco: Downtown Center • $675

Pricing: Strategies and Tactics

X483.6 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Marketing Metrics; an elective in the Certificate Program in Marketing

Pricing is more important and more valuable to businesses today than ever before. In this course, you examine the role of pricing and explore various pricing strategies and tactics to win in global markets throughout the product life cycle. You learn to increase your effectiveness as a decision maker at both the strategic and tactical levels, as well as develop ideas that can improve profits and sales at your company.

EDP 306233
David Mok, M.S., M.B.A.
9 meetings
Mondays, 6–9 pm
March 28–May 23
San Francisco: Downtown Center • $675

Social Media Marketing

0.8 ceu

Learn to use social media as a low-cost marketing tool, and develop competitive strategies to make your business or product stand out from the crowd. Whether it’s a blog, Facebook, LinkedIn, or Twitter, social platforms are driving purchasing decisions in both the online and offline worlds. Enroll in this exciting workshop, and learn how to create a powerful voice in this “influence economy,” where anyone with an opinion can effect great change.

EDP 306589
Lorrie Thomas, B.A.
1 meeting
Saturday, 9 am–5:30 pm
February 12
San Francisco: Downtown Center • $425

NEW THIS TERM

Special Events Project Planning

X415.3 • 1 semester unit in Business Administration

Learn how to produce special events of varying sizes for either public relations or fundraising outcomes. Understand how strategically planned special events can gain favorable media attention, convey a specific message or secure recognition, and significantly contribute to the image and reputation of a company, organization, product, or program. Master basic event planning tools and concepts critical to successful event coordination. Topics include strategic event design; evaluation methods; budgets; time lines; fundraising strategies; site selection and inspection; site plan design; theme development; and promotional websites, printed materials, and social media.

EDP 336461
Helena Weiss-Duman, M.A.
2 meetings
Fridays, 9 am–5 pm
April 8 and April 15
Berkeley: Golden Bear Center • $450
Certificate Program in Marketing

With the Certificate Program in Marketing from UC Berkeley Extension, you gain the crucial skills and a credential to advance your career. You’re ready to contribute more to your organization or take on a new professional role. You’re also equipped with in-depth knowledge of the latest marketing concepts and techniques in less time and at less cost than a master’s degree requires. Get an overview with courses on marketing research and planning, strategic marketing, and emerging trends in social media and other innovative technologies. Learn from some of the best in the business—leading professionals with the marketing acumen and teaching experience to provide both a theoretical foundation and practical training.

Curriculum Requirements
The curriculum consists of 4 required courses and 2 electives for a total of 12 semester units (180 hours of instruction).

Required Courses
- Introduction to Marketing X460.1 (offered every term and online)
- Marketing Research: Concepts and Techniques X460.6 (offered every term and online)
- Strategic Marketing X415 (offered every term and online)
- Strategic Marketing 2.0—Social Media and Other Innovative Technologies X464.5 (offered every term and online)

Electives Available This Term
- Communicating Across Cultures: Marketing and Sales Challenges Around the World X495.7
- Integrated Marketing Communications X466.1
- Introduction to Advertising X401.7
- Introduction to Direct Marketing X463.5
- Introduction to High-Tech Product Management and Marketing X448
- Introduction to Public Relations X466
- Marketing Analytics X466.8
- Marketing Strategies for Entrepreneurs and Small Business Owners X475.5
- New Product Development X405.8
- Pricing: Strategies and Tactics X483.6
- Strategic Brand Management X459.2
- Strategic Marketing Planning X411.3
- Strategies and Technology for Online Multimedia Ad Campaigns X464.4

Learn More and View the Brochure
extension.berkeley.edu/cert/market.html
(510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 152033
Professional Sequence in Marketing Metrics

Begin to measure the effectiveness of your marketing campaigns using the latest approaches and best practices to analyze and use metrics. The Professional Sequence in Marketing Metrics helps you increase your marketing success through analytics, market research, pricing strategies and tactics, and online technology. Learn how to apply marketing metrics to a wide range of real-world advertising techniques, as well as how those quantitative measurements affect your company’s profitability. Substantiate your success and enhance your career now with the skills and information you gain from this four-course integrated curriculum.

Prerequisite
Introduction to Marketing X460.1 or equivalent

Curriculum Requirements
The curriculum consists of 4 required courses for a total of 7 semester units (105 hours of instruction).

Required Courses
- Marketing Analytics X466.8 (offered every term)
- Marketing Research: Concepts and Techniques X460.6 (offered every term and online)
- Pricing: Strategies and Tactics X483.6 (offered spring and fall terms)
- Strategies and Technology for Online Multimedia Ad Campaigns X464.4 (offered spring and fall terms)

Learn More and View the Brochure
extension.berkeley.edu/spos/metrics.html
(510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 302919

Integrated Marketing Communications

Integrated Marketing Communications

X466.1 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Successful marketers maximize their sales opportunities by using integrated marketing communications (IMC), which include advertising, personal selling, promotion, direct marketing, public relations, customer relationship management (CRM), and electronic media. In this course, you prepare an integrated marketing communications plan.

Prerequisite: Introduction to Advertising X401.7 or consent of instructor

Sec. 1 EDP 846873
Peter Alexander, Ph.D., M.B.A.,
Extension Honored Instructor
January 18–April 12
Online • $720

Sec. 2 EDP 306720
Al Mattison, B.A.
10 meetings
Wednesdays, 6–9 pm
February 16–April 20
San Francisco: Downtown Center • $675

Introduction to Public Relations

X466 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Learn public relations strategies that you can implement quickly and inexpensively, including how to create public relations materials such as positioning statements and press releases. You also get hands-on experience solving problems, identifying solutions, and understanding reporters’ interviewing styles. With the public relations strategies you learn in this course, you can help your company or organization sell products to the general public and improve its corporate image.

Sec. 1 EDP 306688
Rodrigo Espinosa, M.S.
10 meetings
Thursdays, 6:30–9:30 pm
February 24–April 28
Belmont: Belmont Center • $675

Sec. 2 EDP 897462
Larry Flegle, D.B.A., M.A., CSE, CEC, MAPPA, MPM, CIPM
Enroll anytime
Online, proctored final exam • $715

Introduction to Direct Marketing

X463.5 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Today’s competitive environment rewards marketers who can prove profitability and return on investment (ROI). Learn strategies and tactics in planning, designing, and executing successful direct-marketing programs using a variety of online and offline media including the Web, lead-generation programs, direct mail, catalogs, telemarketing, and broadcast. Apply this knowledge to professional and financial, business-to-business, technology, consumer and nonprofit services.

EDP 306142
Gwen Kaplan, B.A.
9 meetings
Mondays, 6–9 pm
January 18–April 11 (also Mondays,
April 18–May 23, 6–9:30 pm)
San Francisco: Downtown Center • $675

Introduction to Advertising

X401.7 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Learn the role of advertising in the marketing plan, as well as different types of advertising and media selection; buyer behavior; ad creation; media planning; measuring effectiveness; and relations between the client, the agency, and people in the media.

Sec. 1 EDP 306605
Al Mattison, B.A.
10 meetings
Mondays, 6–9 pm
January 3–March 21 (no meeting January 17 and February 21)
San Francisco: Art and Design Center • $675

Sec. 2 EDP 897447
Deborah Medsker, B.A.
Enroll anytime
Online, proctored final exam • $715
Technical Marketing

E-mail and Online Marketing
0.8ceu
A requirement in the Professional Series in Strategic Online Marketing
Power up your e-mail marketing to maximize business profits. This class presents winning marketing strategies for acquiring and retaining valuable customers in a world of legislative restrictions and spam blockers. Topics include 90 percent deliverability; offer types and contact strategies; response rates and personalization preferences; creative tips for balancing text and graphics; and compliance with the Federal CAN-SPAM Act, the California Online Privacy Act, and the Child Online Privacy Act.
EDP 306654
Laurie Beasley, B.S.
1 meeting
Saturday, 8:30 am–5 pm
February 5
San Francisco: Downtown Center • $425

Hands-On Advanced E-mail and Online Marketing
0.8ceu
A requirement in the Professional Series in Strategic Online Marketing
Increase your e-mail campaign click-through and conversion using strategies and techniques you learn in this course. Optimize your e-mail design for devices such as smartphones and PDAs and settings such as preview panes and blocked images. In addition to how e-mail broadcast engines work, learn advanced techniques you can use to interface e-mail response data with your customer relationship management (CRM) system. See how to set up triggered e-mail campaigns for lead nurturing. Also learn how segmentation, dynamic content, and personalized e-mail and landing pages can help increase conversion on your campaigns by 50 to 150 percent.
EDP 306662
Laurie Beasley, B.S.
1 meeting
Saturday, 8:30 am–5 pm
March 12
San Francisco: Downtown Center • $425

Professional Sequence in Integrated Marketing Communications
In today’s competitive business environment, marketing programs need to engage customers using a whole range of marketing tools. The Professional Sequence in Integrated Marketing Communications helps you develop the expertise to use these tools effectively and produce successful results. Four courses address essential principles of advertising, direct marketing, and public relations—and teach you how to combine them to maximize marketing effectiveness.

Curriculum Requirements
The curriculum consists of 4 required courses for a total of 8 semester units (120 hours of instruction).

Required Courses
• Introduction to Advertising X401.7 (offered spring and fall terms and online)
• Integrated Marketing Communications X466.1 (offered spring and fall terms and online)
• Introduction to Direct Marketing X463.5 (offered spring and fall terms)
• Introduction to Public Relations X466 (offered spring and fall terms and online)

Learn More and View the Brochure
extension.berkeley.edu/spos/imc.html
(510) 642-4231
business@unex.berkeley.edu

Enroll using EDP 152561
Business

Search Engine Marketing
0.8 ceu
A requirement in the Professional Series in Strategic Online Marketing
With more than 90 percent of Internet users finding products, services, and information through search engines, search engine marketing (SEM) remains a critical medium for you to create brand awareness and gain new customers. Learn SEM techniques and tools so you can effectively incorporate SEM into your marketing efforts and enhance your career prospects.

EDP 306571
Lorrie Thomas, B.A.
1 meeting
Saturday, 9 am–5:30 pm
March 19
San Francisco: Downtown Center • $425

Strategies and Technology for Online Multimedia Ad Campaigns
X464.4 • 1 semester unit in Business Administration
A requirement in the Professional Sequence in Marketing Metrics and in the Professional Series in Strategic Online Marketing; an elective in the Certificate Program in Marketing
Even if you are not involved in e-commerce, learning to use the Internet as an advertising channel can help attract new customers and retain current customers who are moving online. This course, intended for small business owners and Internet professionals, shows you how businesses of all sizes can now target customers with exceptional precision and measure the return on their advertising dollars. Note: As part of the course project, you must spend $50 to set up an account to run an online ad campaign.

EDP 306597
Nadir Hussain, M.B.A., M.S.
5 meetings
Saturdays, 10 am–1 pm
April 23–May 21
San Francisco: Art and Design Center • $545

Design Thinking: Inspire, Inform, and Transform
Learn how the creative problem-solving process of design thinking helps you innovate quickly and decrease risks and costs. Manage failure, enhance innovation, and decrease risks and costs working in a team environment.
For course schedule, see p. 74.
Survey of Personal Financial Planning

X433 • 2 semester units in Business Administration
2 CE units for life agents — LX

A requirement in the Professional Sequence in Personal Financial Planning

Learn to prepare a comprehensive financial plan for an individual client. Master the technical skills required in areas such as income tax, investments, insurance, employment benefits, estate planning, and mathematical analysis. Learn how to provide comprehensive service and create an optimum client-practitioner relationship. Individuals who wish to learn about financial planning fundamentals for themselves can also benefit from this course, though it is geared toward those who are pursuing professional certification.

We recommend that you take Basic Financial Mathematics and Financial Calculators before enrolling in Survey of Personal Financial Planning X433, if you don’t have experience using financial calculators.

Sec. 1 EDP 326678
Saundra Davis, M.S.
10 meetings
Tuesdays, 6:30—9:30 pm
January 4–March 8
San Francisco: Downtown Center • $750

Sec. 2 EDP 326694
Catherine Bradford, M.S., CFP, ChFC
10 meetings
Mondays, 6:30—9:30 pm
March 28–June 6 (no meeting May 30)
San Francisco: Downtown Center • $750

Sec. 3 EDP 326702
Laurie Nardone, CFP, B.A.
10 meetings
Mondays and Wednesdays, 6:30—9:30 pm
April 20–May 25 (no meeting April 25)
Berkeley: Golden Bear Center • $750

Sec. 4 EDP 897116
Christina Woo, M.B.A.
Enroll anytime
Online, proctored final exam • $730

Hands-on
Basic Financial Mathematics and Financial Calculators

Get a one-day, hands-on introduction to the basic mathematics used in finance, including instruction in using financial calculators.

For course schedule, see p. 64.

Estate Planning

X433.2 • 2 semester units in Business Administration
2 CE units for life agents — LX


Study the tax-oriented decisions and personal considerations that constitute an effective estate plan. Topics include the federal estate gift tax structure and application; basic documents in estate planning; gifts to reduce income and estate taxes; charitable giving; and specialized planning for the executive, the business entrepreneur, and the wealthy. Enrollment is limited.

EDP 316935
Ralph Hochstein, J.D.
10 meetings
Mondays, 6:30—9:30 pm
March 28–June 6 (no meeting May 30)
San Francisco: Downtown Center • $750

Insurance in Personal Financial Planning

X433.8 • 2 semester units in Business Administration
2 CE units for life agents — LX

A requirement in the Professional Sequence in Personal Financial Planning

Survey risk management in the areas of life and health insurance, annuities, and property/casualty and liability coverage. Learn how to determine insurance needs, evaluate various insurance plans, and evaluate contract selection criteria from a cost-benefit standpoint. Emphasis is on the practical aspects of insurance planning and on the analysis of in-depth case studies. Enrollment is limited.

Prerequisites: See Web.

EDP 326108
Kurt Carrasquila, M.B.A.,
Extension Honored Instructor
10 meetings
Mondays, 6:30—9:30 pm
January 3–March 21 (no meeting January 17 and February 21)
San Francisco: Downtown Center • $750

Random Text

Follow an academic path to the financial planning profession with courses that pave the way to take the Certified Financial Planner (CFP®) Certification Examination. This specialized program of study provides you with knowledge and skills that you can use immediately. It also offers the advantage of a curriculum that is overseen by an advisory board of business and education leaders and taught by working professionals with many years of practical business experience.

Curriculum Requirements
The curriculum consists of 7 required courses and 1 elective for a total of 16 semester units (240 hours of instruction).

Required Courses
• Survey of Personal Financial Planning X433 (offered every term and online)
• Employment Benefits and Personal Financial Planning X433.6 (offered spring and fall terms)
• Estate Planning X433.2 (offered every term)
• Income Taxes and Personal Financial Planning X433.1 (offered spring and fall terms)
• Insurance in Personal Financial Planning X433.8 (offered spring and fall terms)
• Investments in Personal Financial Planning: General Principles and Methods X433.3 (offered fall term)
• Personal Financial Planning Practicum X433.7 (offered every term)

Electives
Visit extension.berkeley.edu/spos/pfp.html for a list of available electives this term.

Learn More and View the Flyer
extension.berkeley.edu/spos/pfp.html
(510) 642-4231
business@unex.berkeley.edu

Enroll using EDP 302836

CFP® and CERTIFIED FINANCIAL PLANNER™ are federally registered marks of the Certified Financial Planner Board of Standards. CFP® certification is granted only by the Certified Financial Planner Board of Standards to those persons who, in addition to completing an educational requirement such as UC Berkeley Extension’s registered program, have met its ethics, experience, and examination requirements.
Professional Sequence in Wealth Management

Wealth management is an advanced area of financial planning incorporating financial engineering, philanthropy, tax issues, and portfolio management. Educating the individuals who serve high-net-worth investors, the Professional Sequence in Wealth Management provides financial planners with the training to help wealthy investors navigate their particular challenges and opportunities. You also focus on developing critical relationship-building and client-retention skills.

This specialized program of study employs materials and techniques that are consistent with modern principles and best practices, providing knowledge and skills that you can use immediately. It also offers the advantage of a curriculum that is overseen by an advisory board of business and education leaders and taught by working professionals with many years of practical business experience.

Curriculum Requirements
The curriculum consists of 5 required courses and 1 elective for a total of 12 semester units (180 hours of instruction).

Required Courses
- Understanding Wealth Management X414.3 (offered spring and fall terms)
- Financial Engineering and Wealth Management X414.4 (offered fall term)
- Counseling Skills for Financial Services Professionals X465 (offered future term)
- Philanthropy as a Wealth Management Tool X414.5 (offered summer term)
- Wealth Management Practicum X414.6 (capstone, offered future term)

Electives Available This Term
- Behavioral Finance X436.7
- Estate Planning X433.2
- Income Taxes and Personal Financial Planning X433.1

Learn More and View the Flyer
extension.berkeley.edu/spos/wealth.html (510) 642-4231
business@unex.berkeley.edu
Enroll using EDP 302828

Employment Benefits and Personal Financial Planning
X433.6 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Personal Financial Planning
Examine retirement and other investment-oriented employment benefits available to business clients and their employees, planning opportunities for tax deferral and capital accumulation, and the advantages and disadvantages of each alternative. Topics include stock options, capital accumulation devices, tax-favored corporate retirement plans, and taxation of benefits. Enrollment is limited.

Prerequisite: See Professional Sequence in Personal Financial Planning on this page.

EDP 326587
Instructor to be announced
10 meetings
Mondays, 6:30–9:30 pm
January 12–March 16
San Francisco: Downtown Center • $750

Income Taxes and Personal Financial Planning
X433.1 • 2 semester units in Business Administration
2 CE units for life agents—LX
A requirement in the Professional Sequence in Personal Financial Planning; an elective in the Professional Sequence in Wealth Management
Focus on the interrelation of income tax rules and regulations and on financial planning techniques applicable to individuals, partnerships, and corporations. Topics include income, deductions, rates, and credits; sales and exchanges; real estate; tax shelters; corporations and planning vis-à-vis the individual shareholders and employees; partnerships and subchapter “S” corporations; retirement plans; and overall coordination of the various planning techniques. Practical problems are analyzed in light of current and proposed tax laws. Enrollment is limited.

Prerequisite: See Web.

EDP 326116
Michael Fontanello, B.S., CPA
10 meetings
Wednesdays, 6:30–9:30 pm
January 12–March 16
San Francisco: Downtown Center • $750

Personal Financial Planning Practicum
X433.7 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Personal Financial Planning
Apply the substantive knowledge you gained in prior courses to prepare and present a complete financial plan in an environment of nonliability. Considerable role playing is involved, and you receive feedback on written work. Computer spreadsheet experience is strongly advised. Enrollment is limited.

Prerequisites: Successful completion of all seven prior courses in the Professional Sequence in Personal Financial Planning. Students must call registration at (510) 642-4111.

EDP 326272
George Noceti, M.B.A., M.A.
10 meetings
Wednesdays, 6:30–9:30 pm
January 5–March 9
San Francisco: Downtown Center • $750

Real Estate Investments for Financial Planners
X433.5 • 2 semester units in Business Administration
An elective in the Professional Sequence in Personal Financial Planning
This course gives you the tools you need to make informed decisions about real estate investments. Topics include investment analysis methodology, using discounted cash-flow techniques and traditional analytical methods; and understanding the impact of financing and leverage on financial returns, valuation methods, acquisition, operation, and disposition under current tax law, including the impact of exchanges and installment sales. Note: A financial calculator, preferably the HP 10b, is required. Enrollment is limited.

Prerequisites: See Web.

EDP 316943
Richard P. Arzaga, B.S., CCIM
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
San Francisco: Downtown Center • $750
Investments in Personal Financial Planning: General Principles and Methods
X433.3 • 2 semester units in Business Administration

A requirement in the Professional Sequence in Personal Financial Planning: an elective in the Certificate Program in Finance

Study subjects basic to understanding securities markets and applying investment theory to individual portfolio management. Review the organization and structure of securities markets and common sources of information about them. Learn to analyze stocks and bonds, focusing on pricing, quality, liquidity, risk, and reward. Enrollment is limited.

Prerequisites: See Web.

EDP 326132
Kurt Carrasquilla, M.B.A.,
Extension Honored Instructor
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
San Francisco: Downtown Center • $715

Wealth Management

Understanding Wealth Management
X414.3 • 2 semester units in Business Administration

A requirement in the Professional Sequence in Wealth Management; an elective in the Professional Sequence in Personal Financial Planning and in the Certificate Program in Finance

This course addresses the challenges and opportunities faced by high-net-worth investors. It reviews the development of the wealth management industry, including the evolution of the high-net-worth-investor segment. In addition to developing an understanding of specific wealth management needs, you explore alternative approaches to asset management, understand benchmarks for evaluating both portfolio and adviser performance, and recognize the tax and estate planning issues that need to be addressed by an effective wealth management plan.

EDP 326249
George Noceti, M.B.A.
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
Berkeley Campus: 155 Barrows Hall • $730

Project Management

COURSE INFORMATION
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/subject/project.html

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Free Information Session: Certificate Program in Project Management

Discover how you can prepare to excel in the expanding field of project management with a UC Berkeley Extension professional certificate that meets the high professional standards of the Project Management Institute. For information about the certificate, see p. 87 or visit extension.berkeley.edu/cert/project.html.

EDP 316794
1 meeting
Wednesday, 6–8 pm
March 23
San Francisco: Downtown Center • FREE

Sec. 3 EDP 316315
Jim O’Donnell, M.B.A.
10 meetings
Mondays and Wednesdays, 6:30–9:30 pm
January 10–February 14
(no meeting January 17)
San Francisco: Downtown Center • $675

Sec. 4 EDP 316323
Roger Warren, M.B.A., PMP
10 meetings
Wednesdays, 6:30–9:30 pm
January 12–March 16
Berkeley: Golden Bear Center • $675

Sec. 5 EDP 846360
Mark Angel, B.S., M.B.A., PMP
January 18–April 12
Online • $735

Sec. 6 EDP 316331
Sonja Koppensteiner, M.S., Ph.D., PMP
10 meetings
Wednesdays, 6:30–9:30 pm
January 19–March 23
Belmont: Belmont Center • $675

Sec. 7 EDP 316356
Helena Weiss-Duman, M.A.
5 meetings
Fridays, 9 am–4 pm
February 25–April 1 (no meeting March 25)
San Francisco: Downtown Center • $675

Sec. 8 EDP 316364
Rick Santos, B.S., ECE, M.B.A., PMP
5 meetings
Saturdays, 9 am–4 pm
February 26–April 2 (no meeting March 26)
Belmont: Belmont Center • $675

Sec. 9 EDP 846527
Alex Brown, PMP, IPMA-C
March 3–April 28
Online, accelerated 8-week format • $735

Sec. 10 EDP 846535
Mark Angel, B.S., M.B.A., PMP
March 3–April 28
Online, accelerated 8-week format • $735

Sec. 11 EDP 316406
Instructor to be announced
5 meetings
Sundays, 9 am–4 pm
March 6–April 3
Berkeley: Golden Bear Center • $675

Sec. 12 EDP 316372
Madeleine Bronstone, MLHR, PMP
10 meetings
Tuesdays, 6:30–9:30 pm
March 29–May 31
San Francisco: Downtown Center • $675
### Project Procurement Management

**X474.3**  
2 semester units in Business Administration  
30 pdu; PMI provider 1173  
A requirement in the Certificate Program in Project Management; an elective in the Certificate Program in Construction Management  

Procurement of products and services is an essential part of a project manager’s responsibilities. Learn the fundamentals of the procurement process, from developing procurement documents and specifications to evaluating vendor proposals, crafting appropriate contracts, and overseeing successful execution of contracts. You also examine a variety of contractual arrangements and fee options.  

**Prerequisite:** Project Management X470

<table>
<thead>
<tr>
<th>Section</th>
<th>Code</th>
<th>Instructor</th>
<th>Meetings</th>
<th>Dates</th>
<th>Site</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sec. 1</td>
<td>EDP 316349</td>
<td>Catherine Pinkas, M.B.A., PMP</td>
<td>5 meetings</td>
<td>April 16–May 21 (no meeting April 23)</td>
<td>Berkeley: Golden Bear Center</td>
<td>$675</td>
</tr>
</tbody>
</table>
| Sec. 14 | EDP 316380 | Ray Ju, M.B.A., PMP, CSM, MAL, GC | 5 meetings | Saturdays, 9 am–4 pm  
April 23–May 21 | San Francisco: Downtown Center | $675 |
| Sec. 15 | EDP 316414 | Sonja Koppensteiner, M.S., Ph.D., PMP | 5 meetings | Fridays, 9 am–4 pm  
April 29–May 27 | Belmont: Belmont Center | $675 |
| Sec. 16 | EDP 316398 | Ravikiran Kalluri, M.B.A., PMP | 10 meetings | Tuesdays and Thursdays, 6:30–9:30 pm  
May 3–June 2 | Belmont: Belmont Center | $675 |
| Sec. 3  | EDP 316422 | William L. Teiser, M.Ch.E. | 5 meetings | Saturdays, 9 am–4 pm  
February 26–March 26 | San Francisco: Downtown Center | $675 |
| Sec. 4  | EDP 316604 | Instructor to be announced | 10 meetings | Mondays and Wednesdays, 6:30–9:30 pm  
March 7–April 6 | San Francisco: Downtown Center | $675 |
| Sec. 5  | EDP 316448 | Instructor to be announced | 10 meetings | Tuesdays and Thursdays, 6:30–9:30 pm  
March 29–April 28 | Belmont: Belmont Center | $675 |
| Sec. 7  | EDP 316455 | Evelyn Launius, PMP | 5 meetings | Sundays, 9 am–4 pm  
April 17–May 22 (no meeting April 24) | Berkeley: Golden Bear Center | $675 |

### Quality Management

**X470.9**  
2 semester units in Business Administration  
30 pdu; PMI provider 1173  
A requirement in the Certificate Program in Project Management and in the Professional Sequence in Project Quality Management  

Get a comprehensive overview of quality management. Understand the philosophies and strategies of prominent quality authorities, and explore ways to implement a management improvement program effectively.  

**Prerequisite:** Project Management X470

<table>
<thead>
<tr>
<th>Section</th>
<th>Code</th>
<th>Instructor</th>
<th>Meetings</th>
<th>Dates</th>
<th>Site</th>
<th>Fee</th>
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</thead>
</table>
| Sec. 1  | EDP 846543 | Murray R. Millet, M.B.A., M.S.E. | 10 meetings | Tuesdays, 6:30–9:30 pm  
January 18–March 22 | San Francisco: Downtown Center | $675 |
| Sec. 2  | EDP 316505 | Doug Hawley, M.B.A.,  
Extension Honored Instructor | 10 meetings | Saturdays, 9 am–4 pm  
January 18–April 12 | Belmont: Belmont Center | $675 |
| Sec. 3  | EDP 846568 | Mark Angel, B.S., M.B.A., PMP | 10 meetings | Mondays and Wednesdays, 6:30–9:30 pm  
March 23–May 25 | San Francisco: Downtown Center | $675 |
| Sec. 4  | EDP 316513 | Instructor to be announced | 5 meetings | Saturdays, 9 am–4 pm  
February 26–April 2 (no meeting March 26) | Belmont: Belmont Center | $675 |
| Sec. 5  | EDP 846576 | Murray R. Millet, M.B.A., M.S.E. | 10 meetings | Tuesdays, 6:30–9:30 pm  
March 3–April 28 | San Francisco: Downtown Center | $675 |
| Sec. 6  | EDP 316521 | Madeleine Bronstone, MLHR, PMP | 10 meetings | Tuesdays, 6:30–9:30 pm  
March 23–May 25 | Berkeley: Golden Bear Center | $675 |
| Sec. 7  | EDP 316810 | Doug Hawley, M.B.A.,  
Extension Honored Instructor | 5 meetings | Fridays, 9 am–4 pm  
April 1–April 29 | San Francisco: Downtown Center | $675 |
Certificate Program in Project Management

The Certificate Program in Project Management gives you the skills you need to keep projects on task, on time, and on budget. The highly interactive curriculum builds from theories of project management to real-world practices applicable to all industries and fields, including marketing, financial services, business administration, information technologies, international trade, health sciences, government, construction, and more. You learn from highly qualified instructors with substantial project management experience. Moreover, all of our project management courses apply toward professional development units (PDUs) for the Project Management Institute (PMI).

Curriculum Requirements
The curriculum consists of 6 required courses for a total of 14 semester units (210 hours of instruction).

Required Courses
We recommend taking these courses in the following sequence:

- Project Management X470 (offered every term and online)
- Project Procurement Management X474.3 (offered every term and online)
- Quality Management X470.9 (offered every term and online)
- Human Factors and Team Dynamics for Project Management X469.2 (offered every term and online)
- Project Risk Management X440.4 (offered every term and online)
- Project Planning and Control X471.9 (offered every term and online)

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GET THE KNOWLEDGE YOU NEED
- PREPARE FOR THE PMP OR CAPM EXAM
- MEET PMI PROFESSIONAL DEVELOPMENT REQUIREMENTS
- CHOOSE A FOCUS ON PROJECT HUMAN RESOURCE MANAGEMENT

Certificate Program in Project Management

UC Berkeley Extension is recognized by the Project Management Institute Registered Educational Provider Program and accepts and adheres to all of its policies, requirements, and rules concerning the provision of professional education activities and materials.
Human Factors and Team Dynamics for Project Management
X469.2 • 3 semester units in Business Administration
45 pdu: PMI provider 1173
A requirement in the Certificate Program in Project Management and in the Professional Sequence in Project Human Resource Management
Learn the leadership and communication skills needed to promote and support quality management in your organization. Through team-based projects, you also learn how to master the most difficult aspects of quality management: creating, nurturing, and sustaining an organizational climate based on best principles and practices. Discover how quality management ensures that concepts such as teamwork, employee empowerment, and continuous improvement don’t degenerate into buzzwords that increase cynicism and decrease employees’ responsiveness to organizational goals.
Prerequisites: Project Management X470
Sec. 1 EDP 846295
Catherine McKnight, M.A.
January 4–March 1
Online, accelerated 8-week format • $830
Sec. 2 EDP 846303
Catherine McKnight, M.A.
January 18–April 12
Online • $830
Sec. 3 EDP 316430
Zachary Wong, Ph.D., Extension Honored Instructor
6 meetings
Saturday, 8:30 am–5 pm
January 22–March 5 (no meeting February 19)
San Francisco: Downtown Center • $750
Sec. 4 EDP 316539
Jim O’Donnell, M.B.A.
15 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
February 8–March 29
Berkeley: Golden Bear Center • $750
Sec. 5 EDP 846311
Catherine McKnight, M.A.
March 3–April 28
Online, accelerated 8-week format • $830
Sec. 6 EDP 316547
Instructor to be announced
15 meetings
Wednesdays, 6–9 pm
March 30–June 22
Belmont: Belmont Center • $750
Sec. 7 EDP 316554
Barbara Blalock, M.A.
6 meetings
Saturdays, 8:30 am–5 pm
April 9–May 21 (no meeting April 23)
San Francisco: Downtown Center • $750

Project Risk Management
X440.4 • 2 semester units in Business Administration
30 pdu: PMI provider 1173
A requirement in the Certificate Program in Project Management and in the Professional Sequence in Project Risk Management; an elective in the Certificate Program in Construction Management
Projects today are more time constrained, pose greater technical challenges, and are less likely to have adequate resources than in the past. There are techniques, however, that can help you deal with project risk and recognize and manage potential problems. You learn practical methods for completing difficult projects and how to apply these methods to your own projects.
Prerequisite: Project Management X470
Sec. 1 EDP 846329
Madeleine Bronstone, MLHR, PMP
January 4–March 1
Online, accelerated 8-week format • $735
Sec. 2 EDP 846337
Anthony Minstein, B.A., CPIM, PMP,
Extension Honored Instructor
January 18–April 12
Online • $735
Sec. 3 EDP 316463
Tom Kendrick, M.B.A., M.S.E.E., PMP
5 meetings
Saturday, 9 am–4 pm
January 22–February 26
(B no meeting February 19)
Berkeley: Golden Bear Center • $675
Sec. 4 EDP 316471
Sonja Koppensteiner, M.S., Ph.D., PMP
10 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
February 15–March 17
Belmont: Belmont Center • $675
Sec. 5 EDP 316497
Lifong Liu, B.S.
5 meetings
Saturday, 9 am–4 pm
February 26–March 26
San Francisco: Downtown Center • $675
Sec. 6 EDP 846345
Madeleine Bronstone, MLHR, PMP
Online, accelerated 8-week format • $735
Sec. 7 EDP 316489
Instructor to be announced
10 meetings
Mondays and Wednesdays, 6:30–9:30 pm
April 25–May 25
San Francisco: Downtown Center • $675

Project Planning and Control
X471.9 • 3 semester units in Business Administration
45 pdu: PMI provider 1173
A requirement in the Certificate Program in Project Management
A successful project manager relies on an effective management plan that provides a baseline for monitoring progress, identifying variances, and taking timely action to mitigate the impact of problems. Learn how to create an effective plan and implement it through completion and evaluation. You also explore the tools and techniques you learned in Project Management X470 in greater detail.
Prerequisite: Project Management X470
Sec. 1 EDP 846816
Anthony Minstein, B.A., CPIM, PMP,
Extension Honored Instructor
January 4–March 1
Online, accelerated 8-week format • $820
Sec. 2 EDP 846824
Anthony Minstein, B.A., CPIM, PMP,
Extension Honored Instructor
January 18–April 12
Online • $820
Sec. 3 EDP 316562
Alan Tsuda, M.B.A.
6 meetings
Saturdays, 8:30 am–5 pm
February 26–April 2
San Francisco: Downtown Center • $750
Sec. 4 EDP 846832
Deann Smith, B.A., PMP, CKM
March 3–April 28
Online, accelerated 8-week format • $820
Sec. 5 EDP 316596
Deann Smith, B.A., PMP, CKM
15 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
April 5–May 24
Berkeley: Golden Bear Center • $750
Sec. 6 EDP 316570
Lifong Liu, B.S.
6 meetings
Saturdays, 8:30 am–5 pm
April 9–May 21 (no meeting April 23)
Belmont: Belmont Center • $750

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Advanced Project Management

Intensive PMP/CAPM Exam Preparation

X474.9 • 2 semester units in Business Administration 35 pdu: PMI provider 1173
Hybrid course. Internet access required.

This 25-hour course prepares you to take the Project Management Professional (PMP) or Certified Associate Project Manager (CAPM) examination. The course is taught in hybrid format, which combines online and classroom training. There are four classroom sessions and 10 online sessions. Topics include management of integration, scope, time, cost, quality, human resources, communications, risk, and procurement. The course also covers ethics and professional responsibility. Attendance is mandatory.

Sec. 1 EDP 316786
Cheryl Allen, M.S., PMP
4 meetings
Saturdays, 9 am–4 pm
January 29–March 19 (no meeting February 5, 19, 26, and March 12)
Berkeley: Golden Bear Center • $1,650

Sec. 2 EDP 316711
Cheryl Allen, M.S., PMP
4 meetings
Saturdays, 9 am–4 pm
April 2–May 14 (no meeting April 9, April 23, February 5, 19, 26, and March 12)
San Francisco: Downtown Center • $1,650

PMP/CAPM Exam Preparation

X459.3 • 3 semester units in Business Administration 45 pdu: PMI provider 1173
This 45-hour course prepares you for the Project Management Institute (PMI) Project Management Professional (PMP) and Certified Associate Project Manager (CAPM) examinations. In addition to in-depth coverage of PMI’s Project Management Body of Knowledge (PMBOK), you analyze sample exam questions, tips, and tricks to help you pass each exam. Chat room interaction, teleconferences with the instructor, virtual desktop sharing (with audio), and threaded discussions allow you to experience the full multimedia of this course.

EDP 846857
Edmond Matevosian, B.S., P.E.
March 3–April 28
Online, accelerated 8-week format • $1,599

Advanced Human Factors: Improving Personal Effectiveness and Influence

X496.6 • 2 semester units in Business Administration 30 pdu: PMI provider 1173
A requirement in the Professional Sequence in Project Human Resource Management

Human factors are the underlying elements of human behavior that motivate people and organizational performance. This advanced course strengthens your ability to lead, motivate, coach, and influence others. It aims to help you gain more self-confidence and self-direction in your business career and to be more skillful in managing interpersonal conflicts and relationships. This course is applicable to a wide range of fields, such as project management, marketing, engineering, computer technology, manufacturing, architecture, construction, service, government, and biotechnology.

Prerequisites: Project Management X470 and Human Factors and Team Dynamics for Project Management X469.2

EDP 326462
Zachary Wong, Ph.D., Extension Honored Instructor
5 meetings
Saturdays, 9 am–4 pm
March 12–April 16 (no meeting March 26)
San Francisco: Art and Design Center • $750

Advanced Project Risk Management

X440.7 • 2 semester units in Business Administration 30 pdu: PMI provider 1173
A requirement in the Professional Sequence in Project Risk Management

Risk management connects to all other aspects of project management. It is central to planning and essential to successful project execution. It relates to eight of the nine knowledge areas in the PMI Project Management Body of Knowledge (PMBOK) and has become fundamental to management at all levels of the organization. Build on the techniques and methods you learned in Project Risk Management X440.4, focus on the context for project risk management, and learn how to establish effective risk management processes for projects.

Prerequisites: Project Management X470 and Project Risk Management X440.4

EDP 326520
Tom Kendrick, M.B.A., M.S.E.E., PMP
5 meetings
Saturdays, 9 am–4 pm
March 5–April 9 (no meeting March 26)
Berkeley: Golden Bear Center • $750

Professional Sequence in Project Risk Management

Uncertainty exists in every project you manage. The Professional Sequence in Project Risk Management teaches you ways to lessen the chances the unexpected will slow or even derail your project. You follow an accepted course of study, first by learning the basics of project management and then by focusing on controlling and measuring the various elements of your projects so you can be sure to deliver a quality product on time and to specification. Ensure that your project management skills are recognized throughout the business world with this specialized program of study from UC Berkeley Extension.

Curriculum Requirements
The curriculum consists of 3 required courses for a total of 6 semester units (90 hours of instruction).

Required Courses
• Project Management X470 (offered every term and online)
• Project Risk Management X440.4 (offered every term and online)
• Advanced Project Risk Management X440.7 (offered spring and fall terms)

Learn More
extension.berkeley.edu/spos/risk.html
business@unex.berkeley.edu
(510) 642-4231

Enroll using EDP 312017

UC Berkeley Extension is recognized by the Project Management Institute Registered Educational Provider Program and accepts and adheres to all of its policies, requirements, and rules concerning the provision of professional education activities and materials.
Business

Professional Sequence in Project Quality Management

One of the hallmarks of project management is benchmarking. With UC Berkeley Extension’s Professional Sequence in Project Quality Management, you complete a course of study that establishes your knowledge of varying levels within project management, from essential basics to advanced best practices. Gain the skills and knowledge to set you apart from your peers and be a more competitive manager.

Curriculum Requirements
The curriculum consists of 3 required courses for a total of 6 semester units (90 hours of instruction).

Required Courses
- Project Management X470 (offered every term and online)
- Quality Management X470.9 (offered every term and online)
- Advanced Quality Management X469 (offered spring term)

Learn More
extension.berkeley.edu/spos/quality.html
business@unex.berkeley.edu
(510) 642-4231

Enroll using EDP 312026

UC Berkeley Extension is recognized by the Project Management Institute Registered Educational Provider Program and accepts and adheres to all of its policies, requirements, and rules concerning the provision of professional education activities and materials.

Project Economic Analysis
X408.6 • 1 semester unit in Business Administration
15 pdu: PMI provider 1173
Every project involves money. Every project requires an economic basis for approval. Being able to make the right business decisions and recommendations about money is critical to effective project management. The most valuable project managers are those who have a strong understanding of economic analysis and how to manage the economics of small and large projects. This practical, hands-on course is designed for nonfinancial professionals who want to gain a solid understanding of the key concepts and techniques of economic analysis in a concentrated, two-day format.

EDP 336503
Sherman Luk, M.A.
2 meetings
Saturdays, 9 am–5 pm
April 2 and April 9
San Francisco: Art and Design Center • $450

NEW THIS TERM
Sustainability and Social Responsibility for Project Managers
X427.2 • 1 semester unit in Business Administration
Addressing responsible business practices can give companies a strategic advantage. Learn how to integrate sustainability into project management practices, and guide your company toward socially responsible behavior.

EDP 336453
Jennifer Russell, B.A.
5 meetings
Thursdays, 6:30–9:30 pm
April 28–May 26
San Francisco: Downtown Center • $450

Advanced Quality Management
X469 • 2 semester units in Business Administration
30 pdu: PMI provider 1173
A requirement in the Professional Sequence in Project Quality Management
Learn to provide superior value to your project stakeholders by examining the concept of quality. You learn to apply principles of quality thinking to real projects in this course. You examine the Quality Framework and learn how to bring those concepts to your real-life projects.

Prerequisites: Project Management X470 and Quality Management X470.9

EDP 326546
Instructor to be announced
5 meetings
Saturdays, 9 am–4 pm
April 16–May 21 (no meeting April 23)
Belmont: Belmont Center • $750

Short Courses

Effective Project Management
1.8 ceu
Project management leads to the success of practically every business and political and social enterprise. Learn to enhance your project management skills and tackle the assumptions that all too frequently make project management an afterthought rather than a vital discipline. While covering the essentials of project planning and control, you also focus on the craft of managing a project to ensure effective outcomes.

Sec. 1 EDP 336347
Cheryl Allen, M.S.
3 meetings
Tuesday–Thursday, 9 am–4 pm
May 17–19
San Francisco: Downtown Center • $950

Sec. 2 EDP 336354
Cheryl Allen, M.S.
3 meetings
Tuesday–Thursday, 9 am–4 pm
March 22–24
Belmont: Belmont Center • $950

Effective Project Management
0.7 ceu
More organizations are recognizing that project management is a core competency of everyone in their organization. Get a simple framework for organizing and managing project-like work within your organization. Through interactive lectures and hands-on exercises and simulations, gain the knowledge to improve your project management skills. You learn when to treat work as a project and how to define steps for managing a project. You also gain project communication skills and learn how to motivate others.

Sec. 1 EDP 336321
Cheryl Allen, M.S., PMP
1 meeting
Friday, 9 am–5 pm
February 11
Berkeley: Golden Bear Center • $295

Sec. 2 EDP 336339
Cheryl Allen, M.S., PMP
1 meeting
Saturday, 9 am–5 pm
April 9
Belmont: Belmont Center • $295

Sec. 3 EDP 316752
Cheryl Allen, M.S., PMP
1 meeting
Saturday, 9 am–5 pm
April 9
San Francisco: Downtown Center • $295

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
BUSINESS

Project Portfolio Management/Leadership

Projects compete for organizational dollars, management attention, and scarce human resources. The impact of projects on the organization is felt throughout the supplier-customer-consumer chain. An effective and efficient process by which projects are initiated, managed, and implemented simply does not exist in most organizations. This session outlines a proven project portfolio management and leadership process designed to achieve a high degree of project success.

EDP 316745
Gopal Kapur, B.A.
1 meeting
Friday, 9 am–5 pm
April 15
San Francisco: Art and Design Center • $295

Real Estate

COURSE INFORMATION
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/business

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Principles of Real Estate
X406.8 • 3 semester units in Business Administration
This course is required for those preparing to take California real estate licensing examinations and is also appropriate for those preparing to purchase homes or other properties. You learn the basic laws and principles of California real estate and how to apply those principles to current real estate opportunities in your own community. You also gain the understanding, background research, and grasp of terminology necessary for specialized courses. California law is emphasized, but many aspects are applicable to real estate interests in other states.

EDP 897033
Tom Gee, B.S.
Enroll anytime
Online, proctored final exam • $770

Real Estate Investments for Financial Planners
This course gives you the tools you need to make informed decisions about real estate investments.
For course schedule, see p. 84.

Professional Sequence in Project Human Resource Management

If you’re especially interested in learning how to manage a project team effectively, the three-course Professional Sequence in Project Human Resource Management provides exactly what you need. It begins with an overview of project management and includes intermediate and advanced courses that strengthen your communication skills and your ability to lead, motivate, coach, and influence others to complete projects successfully.

Curriculum Requirements
The curriculum consists of 3 required courses for a total of 7 semester units (105 hours of instruction).

Required Courses
• Project Management X470
  (offered every term and online)
• Human Factors and Team Dynamics for Project Management X469.2
  (offered every term and online)
• Advanced Human Factors: Improving Personal Effectiveness and Influence X496.6
  (offered spring and fall terms)

Learn More and View the Flyer
extension.berkeley.edu/spos/projecthrm.html
(510) 642-4231
business@unex.berkeley.edu

Enroll using EDP 302901

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Computer Technology and Information Management

extension.berkeley.edu/it
From analyzing support for business processes to cloud computing platforms, UC Berkeley Extension’s programs and courses in computer technology and information management provide the innovative training you need to thrive in today’s dynamic markets. UC Berkeley Extension gives you the latest approaches to the fastest-growing technology segments: information business systems, business analysis, database management, UNIX/Linux, and computer-based image processing.

Increase your conceptual understanding of practical computational software methods used for financial risk management. Learn the advanced language features of MATLAB and SCILAB to solve on-the-job scientific and engineering problems. Or explore the growing field of competitive analytics.

Whether you’re a systems manager, a software programmer, or a business analyst, UC Berkeley Extension offers the powerful tools you need for your professional career.
Computer Technology and Information Management

Free Information Sessions

Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Post-Baccalaureate Certificate in Information Systems and Management

EDP 326710
Tuesday, May 24, 6:30–7:30 pm
Berkeley: Golden Bear Center

Professional Program in Restaurant Technology Administration

EDP 326686
Tuesday, May 24, 5:30–6:30 pm
Berkeley: Golden Bear Center

Professional Sequence in Business Intelligence and SAS Analytics Software

EDP 326645
Thursday, May 19, 5:30–6:30 pm
Berkeley: Golden Bear Center

Professional Series in Virtual and Cloud Computing

EDP 326660
Thursday, May 19, 6:30–7:30 pm
Berkeley: Golden Bear Center

Technical Management and Analysis

COURSE INFORMATION

(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/it

ONLINE COURSE INFORMATION

(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Free Information Session: Professional Program in Restaurant Technology Administration

This specialized program of study enables you to provide better business analytics, reporting, and forecasting so that you can operate a more successful restaurant using the latest technological tools. Come to a free, no-obligation evening to learn how you can enhance your career opportunities in the future of restaurant technology. For program details, see p. 97 or visit extension.berkeley.edu/spos/restaurant.html.

EDP 326686
1 meeting
Tuesday, 5:30–6:30 pm
May 24
Berkeley: Golden Bear Center • FREE

Free Information Session: Post-Baccalaureate Certificate in Information Systems and Management

Meet UC Berkeley Extension instructors and staff members, and find out more about the certificate’s curriculum. An opening presentation is followed by a Q&A session. For certificate details, see p. 95 or visit extension.berkeley.edu/cert/ism.html.

EDP 326710
1 meeting
Tuesday, 6:30–7:30 pm
May 24
Berkeley: Golden Bear Center • FREE

Free Information Session: Professional Series in Virtual and Cloud Computing

Understand the technologies and applications of cloud computing and its virtualization foundation used in servers, desktops, embedded devices, and mobile devices. Come to a free, no-obligation evening to learn how you can gain the technical expertise and real-world knowledge to take advantage of this growing programming market segment. For series details, see p. 99 or visit extension.berkeley.edu/spos/cloud.html.

EDP 326660
1 meeting
Thursday, 6:30–7:30 pm
May 19
Berkeley: Golden Bear Center • FREE

Call for Instructors

UC Berkeley Extension invites highly qualified instructors to submit course proposals and résumés or letters of interest to jobs@unex.berkeley.edu. Information about current course offerings is available at extension.berkeley.edu.

UC Berkeley Extension is committed to diversity in its staff, faculty, and student body and invites all qualified people to apply. AA/EO
Post-Baccalaureate Certificate in Information Systems and Management

Prepare yourself for a new career in the IT field by expanding your expertise and taking your skills to the next level. Our rigorous curriculum combines theory and practice to give you the balanced mix of skills and powerful tools you need to build a successful career in information management, systems analysis, computer programming, or computer consulting. Upon successful completion of the Post-Baccalaureate Certificate in Information Systems and Management (ISM), you can define, manage, and execute a systems approach to the business environment; write computer programs; and design database systems. This professional certificate is based on a wide variety of core courses and electives.

Curriculum Requirements
The curriculum consists of 4–8 required courses (depending on specific courses taken) for a total of 10 semester units (150 hours of instruction). At least 6 of the 10 semester units required must come from the core courses list.

Prerequisites
You must hold a bachelor’s degree and submit a transcript to register for this certificate.

Core Courses
You must take a minimum of 6 semester units from this list.

- Introduction to Information Systems Analysis and Design X422 (offered every term and online)
- Advanced Business Systems Analysis X423 (offered online)
- Introduction to Relational Database Management Systems X409.1 (offered spring term)
- Concepts of Relational Database Management Systems X408 (offered online)
- UNIX/Linux System Fundamentals X426.1A (offered summer term)
- Using the UNIX Operating System X415 (offered online)
- UNIX/Linux System Administration Programming: Shell, C, and Perl X426.1B (offered fall term)
- Fundamentals of Data Communications and Networking X433 (offered summer term and online)
- Managing the Software Development Life Cycle X458.4 (offered summer term)
- Software Requirements Analysis X438.1 (offered summer term)
- Software Project Management X433 (offered future term)
- Software Quality Assurance Methodologies: Practices in the Software Industry X449.3 (offered summer and fall terms)

Electives
For a list of electives available this term, please visit extension.berkeley.edu/cert/ism.html.

Learn More and View the Brochure
extension.berkeley.edu/cert/ism.html
(510) 642-4151
course@unex.berkeley.edu
Enroll using EDP 302894

GET THE KNOWLEDGE YOU NEED
- DEVELOP A SYSTEMS MANAGEMENT PERSPECTIVE
- UNDERSTAND DATA THEORY, SOFTWARE PRINCIPLES, AND NETWORKING TECHNOLOGY
- ENHANCE YOUR PRACTICAL SKILLS

FIND THE FLEXIBILITY YOU WANT
- OPTIMIZE THE PROGRAM TO MEET YOUR NEEDS
- STUDY IN THE CLASSROOM OR ONLINE
Introduction to Information Systems Analysis and Design
X422  •  3 semester units in EECS-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management
This is the first course in a series covering information analysis and logical specification of the system development process in an organizational context. It emphasizes the interactive nature of the analysis and design process.
Sec. 1 EDP 316232
Hari Hirani, M.S.
6 meetings
Saturdays, 8:30 am–5 pm
January 8–February 26 (no meeting January 15 and February 19)
Berkeley: Golden Bear Center  •  $645
Sec. 2 EDP 846402
Mark Angel, B.S., M.B.A., PMP
January 18–April 12
Online  •  $820

The Systems Analyst as Information Systems Catalyst
X480.2  •  2 semester units in Business Administration
The systems analyst on an IT project is uniquely placed to be a catalyst for success. Learn the critical interpersonal aspects of the client-analyst relationship and the process through which client needs and requirements are discovered, defined, and prioritized. You study the art of communication and learn how to develop effective work relationships with clients. In addition, you explore topics such as thinking like an analyst, stakeholder analysis, information gathering, interviewing techniques, facilitation techniques, problem solving, presentations, and group dynamics.
Prerequisite: Systems Analysis and Design: Applying Structured Techniques X423, comparable coursework, or professional experience
EDP 306779
Patrick McDermott, B.A.
10 meetings
Tuesdays, 7–10 pm
February 22–April 26
San Francisco: Downtown Center  •  $645

NEW THIS TERM
Introduction to Statistical Analysis with SPSS
X400  •  2 semester units in Statistics
Get an introduction to the basic practice of statistics by using IBM SPSS Base for Windows, a statistical software program used for data management and data analytic purposes. Understand the basic workings of SPSS, and learn how to perform basic statistical analyses with SPSS. Focus on database management tasks, descriptive statistics and graphics, and basic inferential statistics.
EDP 336065
Dominic Lusinchi, Ph.D.
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
San Francisco: Downtown Center  •  $545

Developing Applications for the iPhone
X422.9  •  2 semester units in EECS
Applications for the Apple iPhone have made it one of the most popular—and lucrative—programming platforms. Learn the hardware and software features of the iPhone and iPod Touch and the tools used to create apps for them. Study tutorials, sample code, and documentation. Modify and extend sample code to give you hands-on experience in developing apps for the iPhone.
EDP 336446
David Rowland, M.S.
10 meetings
Thursdays, 6:30–9:30 pm
January 13–March 17
Berkeley Campus: 2308 Tolman Hall  •  $595

NEW THIS TERM
Mining Business Intelligence with Machine Learning
X414.7  •  2 semester units in EECS
Learn advanced data-mining concepts for generating cost-effective business intelligence used to support excellent decision making. Gain familiarity with machine learning tools, and quickly grasp the data-mining concepts and processes. Explore the two principal data-mining approaches—pattern discovery and predictive modeling—with practical examples to prepare you for working in real-world environments. Cover a variety of data preprocessing, classification, association, clustering, and results validation.
EDP 316141
Lee-Hong Chang, M.S., Ph.D.
10 meetings
Thursdays, 7–10 pm
February 10–April 14
Belmont: Belmont Center  •  $545

NEW THIS TERM
Software Testing for Web Applications
X414.8  •  2 semester units in EECS
Learn practical testing approaches that deliver high-quality software systems or services, including applications for cloud computing. Prepare for today’s Agile business environment by studying effective and efficient testing strategies, tactics, and design. Begin with an overview of the modern software-development process, and then test development based on specification and quality risk analysis. Cover system, unit, integration, and automated testing techniques.
EDP 316158
Lee-Hong Chang, Ph.D.
10 meetings
Mondays, 7–10 pm
January 3–March 21 (no meeting January 17 and February 21)
Berkeley Campus: 54 Barrows Hall  •  $545
Restaurant Technology Administration

Maximizing a Restaurant’s Point of Sale System

X456.3 • 2 semester units in EECS

A requirement in the Professional Program in Restaurant Technology Administration

Modern point of sale (POS) systems have gained sophisticated capabilities and features as they have morphed into specialty enterprise management systems (EMS). Learn how to gain the most value from a full POS system to improve productivity and increase profit margins. Identify the right POS system for your operation, and determine which features should be implemented. Effectively manage the system, leverage reporting tools, and enhance business profitability.

EDP 306787
Randall Chin, B.S.
10 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
January 4–February 3
Berkeley: Golden Bear Center • $545

New this term

Benefits of Restaurant Online-Ordering Systems

X456.4 • 1 semester unit in EECS

A requirement in the Professional Program in Restaurant Technology Administration

More restaurants want software applications that offer online ordering—allowing customers to place orders in real time—to reduce errors, expedite orders, collect credit card payments, minimize phone lines, reduce labor, capture customer information for e-mail promotions, and increase business and loyalty.

EDP 306795
Randall Chin, B.S.
5 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
February 8–February 22
Berkeley: Golden Bear Center • $445
NEW THIS TERM
Professional Program in Formal Software Development

Formal software development, with its mathematical foundation, is the pinnacle of scientific theory in the field of computer science—and the foundation for some of the most exciting projects in software today. Propel your career to new heights with UC Berkeley Extension’s highly specialized and rigorous Professional Program in Formal Software Development. Learn to judge the effectiveness of available formal tools, their trade-offs, and their suitability for certain practical applications. Prepare to study a wide range of currently employed methodologies, beginning with type-checking systems, static analysis, model checking, and theorem proving. Industry leaders and pioneers leading the program ensure that you receive the most practical, applicable, and cutting-edge instruction available.

Curriculum Requirements
The curriculum consists of 3 required courses and at least 2 elective courses for a total of 10 semester units (150 hours of instruction).

Required Courses
- SMT Solvers X408.6 (offered future term)
- Interactive Provers X408.7 (offered fall term)
- Imperative Programs X408.8 (offered fall term)

Electives Available This Term
- Formal Software Development: Formal Semantics X408.4
- Formal Software Development: Main Concepts of Logic X408.2
- Formal Software Development: Reasoning with Models X408.3

Learn More
extension.berkeley.edu/sp/os/software.html
(510) 642-4151
course@unex.berkeley.edu
Enroll using EDP 312141

NEW THIS TERM
Profitable IT Requirements for Opening a New Restaurant
X456.5 • 3 semester units in EECS
A requirement in the Professional Program in Restaurant Technology Administration

Learn what is required to design and operate a new restaurant from an information technology (IT) perspective. Learn to purchase the right equipment, such as proper point-of-sale (POS)/enterprise systems, hardware for networking (modems, routers, switches, wireless devices), credit card processors, main computer servers, cabling, phone systems, DSL/cable, printers, kitchen display stations, and surveillance cameras. Learn how restaurants are moving away from printing hard-copy reports by creating online reporting portals, electronically sending out invoices, and purchasing food products online.

EDP 306803
Randall Chin, B.S.
15 meetings
Tuesdays and Thursdays, 6:30–9:30 pm
February 24–April 14
Berkeley: Golden Bear Center • $445

NEW THIS TERM
Mastering Restaurant Online Reservation Systems
X456.6 • 1 semester unit in EECS
A requirement in the Professional Program in Restaurant Technology Administration

Learn the benefits of implementing an advanced database-driven online reservation system for a restaurant. Discover how Internet reservation systems are used to accept reservations and capture customer information—such as contact details, food and wine preferences, anniversaries, birthdays, allergies, and seating preferences—for e-mail marketing campaigns and guest loyalty programs. Study how restaurateurs perform survey programs, and learn how to consolidate the information with the reservation system database, business cards, online website sign up, and other sources to create a master customer database and increase business.

EDP 306811
Randall Chin, B.S.
2 meetings
Saturdays, 8:30 am–5 pm
April 16 and April 23
Berkeley: Golden Bear Center • $445

NEW THIS TERM
Creating a High-Tech Restaurant Website
X456.7 • 1 semester unit in EECS
A requirement in the Professional Program in Restaurant Technology Administration

Learn how to earn value from a fully integrated website storefront. Find out how to create online content to achieve better results, and discover available features that are best suited for a particular type of restaurant operation (for example, independent versus group restaurant). Define Web content requirements for a new restaurant website, and learn what can be posted on the restaurant’s public site and what should be posted on the restaurant’s intranet.

EDP 306829
Randall Chin, B.S.
2 meetings
Saturdays, 8:30 am–5 pm
April 30 and May 7
Berkeley: Golden Bear Center • $445

NEW THIS TERM
Increase Sales with Restaurant Online Order Catering
X456.8 • 1 semester unit in EECS
A requirement in the Professional Program in Restaurant Technology Administration

Learn how an online catering application can streamline operations and assist in generating additional business from local companies, conventions, schools, weddings, and private events. Catering applications allow caterers and restaurateurs to manage orders; schedule staffing; forecast food inventories; consolidate multiple orders for production; print description labels for orders, names of customers and companies; and set up delivery schedules. Discover what features are offered and determine which application is the right fit for a particular type of operation.

EDP 306837
Randall Chin, B.S.
2 meetings
Saturdays, 8:30 am–5 pm
May 14 and May 21
Berkeley: Golden Bear Center • $445
Formal Software Development

NEW THIS TERM

Formal Software Development: Main Concepts of Logic

X408.2 • 2 semester units in EECS-DCS

An elective in the Professional Program in Formal Software Development

Get an introduction to mathematical logic, with emphasis on the theory needed for formal software development. Learn to understand the traditional division of logic into proof theory, model theory, and metamathematics. Study the main logics of propositional logic and first-order logic, with particular attention to the automatic construction of proofs. Briefly explore non-classical logics, and learn how to program in Prolog.

EDP 316273
Adrian Zidaritz, Ph.D.
9 meetings
Mondays and Thursdays, 6:30–10 pm
January 31–March 3 (no meeting February 21)
Berkeley Campus: 174 Barrows Hall • $545

Formal Software Development: Reasoning with Models

X408.3 • 2 semester units in EECS-DCS

An elective in the Professional Program in Formal Software Development

Learn how to develop models of software systems and prove properties of these models. Examine two modeling languages: Event-B and Maude. Both languages feature nondeterministic choice and can therefore model concurrency. With Event-B, formal development can be started early, at the requirements analysis stage, whereas Maude models are executable, and the translation (usually unverified) to a programming language is often unnecessary.

EDP 316281
Adrian Zidaritz, Ph.D.
9 meetings
Mondays and Thursdays, 6:30–10 pm
March 17–April 14
Berkeley Campus: 174 Barrows Hall • $545

NEW THIS TERM

Formal Software Development: Formal Semantics

X408.4 • 2 semester units in EECS-DCS

An elective in the Professional Program in Formal Software Development

Formal semantics are used in almost all areas of formal software development. Understand the formal semantics of a programming language by developing models for minilanguages, with each new language introducing different programming concepts. Using Prolog and Maude to develop the models, explore all three major types of semantics—operational, denotational, and axiomatic—as well as lesser-known algebraic and action semantics.

EDP 316299
Adrian Zidaritz, Ph.D.
9 meetings
Mondays and Thursdays, 6:30–10 pm
April 28–May 26
Berkeley Campus: 174 Barrows Hall • $545

Virtualization and Cloud Computing

Multivendor Virtualization

X422.1 • 3 semester units in EECS

A requirement in the Professional Series in Virtual and Cloud Computing

Focus on the practical areas of creating, configuring, and securing popular virtual machines on hypervisors such as Microsoft Hyper-V, Red Hat KVM, VMware ESX, and QEMU. This course is ideal for planners who optimize the trade-offs of different vendors’ solutions from both technical and business perspectives. Learn the GUI tools and the internals of each vendor’s various SDKs available for developing custom applications. You also learn how to write plug-ins for vSphere to customize the solution to a particular environment. Note: Bring an X86-based machine that is Intel VT or AMD-V (virtualization-enabled) with a minimum of 8 GB of RAM, and a 500 GB hard drive with a DVD-RW drive and USB port(s); you may have to install ESXi(), Hyper-V, Red Hat KVM, enabled kernel, and QEMU.

EDP 306845
Ravi Jagannathan, B.S.
6 meetings
Saturdays, 8:30 am–5 pm
March 5–April 9
Belmont: Belmont Center • $795

Learn More
extension.berkeley.edu/spos/cloud.html
course@unex.berkeley.edu
(510) 642-4151
Enroll using EDP 312067
SAS—Information Analysis and Analytics

Introduction to the SAS System

X405 • 2 semester units in Statistics

A requirement in the Professional Sequence in Business Intelligence and SAS Analytics Software; an elective in the Professional Sequence in Database Management

The SAS system for information delivery is the international standard for data management, manipulation, storage, retrieval, and analysis. Gain a rigorous exposure to core SAS elements, and get grounded in the fundamentals of the SAS system programming language and procedures.

EDP 306852
Jianmin Liu, Ph.D.
10 meetings
Tuesdays, 6–9 pm
January 18–March 22
San Francisco: Downtown Center • $945

SAS Graphing and Output Delivery System (ODS)

X405.7 • 2 semester units in Statistics

A requirement in the Professional Sequence in Business Intelligence and SAS Analytics Software

SAS/GRAPH is an SAS program module that allows you to translate complex data sets into easily understood and persuasive graphics. Learn about and compare real-world case studies, and see how SAS/GRAPH solves problems by providing virtually limitless options in displaying analytical results tailored to your audience’s needs and expectations.

EDP 306860
Jianmin Liu, Ph.D.
10 meetings
Tuesdays, 6–9 pm
March 29–May 31
San Francisco: Downtown Center • $945

SAS Techniques for Risk Management

X402 • 2 semester units in Statistics

A requirement in the Professional Sequence in Business Intelligence and SAS Analytics Software

Learn SAS to better understand and evaluate financial risk, database marketing statistics, customer relationship management (CRM) approaches. Gain familiarity with business intelligence applications from an analytical point of view and study the role of statistical data mining in maximizing profit through customer behavior analysis, acquisition, cross-selling, customization, retention, and win-back efforts. Learn how to implement computational methodologies, predictive models, and other business-intelligence-based strategies to create practical risk-management solutions for real-world situations.

EDP 306886
Jianmin Liu, Ph.D.
10 meetings
Wednesdays, 6–9 pm
March 23–May 25
San Francisco: Downtown Center • $945

Database Management Systems

COURSE INFORMATION

(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/it

ONLINE COURSE INFORMATION

(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Introduction to Relational Database Management Systems

X409.1 • 2 semester units in EECS-DCS

A core course in the Post-Baccalaureate Certificate in Information Systems and Management; a requirement in the Professional Sequence in Database Management

Learn effective relational database design, and gain a general overview of relational database management systems. This class introduces you to the terminology and methods used to create and modify database management systems (DBMS). Emphasis is given to accessing large databases and developing methods for working with data on different DBMS. The course concentrates on helping you gain confidence in using DBMS and understanding data structures.

EDP 306902
Andrew J. Oppel, B.A.
10 meetings
Tuesdays, 6:30–9:30 pm
January 18–March 22
San Francisco: Downtown Center • $795

Data Modeling and Database Design

X402.5 • 2 semester units in EECS

A requirement in the Professional Sequence in Database Management; an elective in the Post-Baccalaureate Certificate in Information Systems and Management

Learn how to create data models from business requirements and to transform them into logical and physical database designs for both transactional (OLTP) and analytical (OLAP) databases, including data warehouses and data marts. This course introduces data modeling concepts as well as the process for creating and managing them. In-class exercises enhance learning and prepare you to complete three design assignments outside of class. Learn to explain how data modeling and data mapping are used to represent expert business knowledge.

EDP 306910
Andrew J. Oppel, B.A.
10 meetings
Tuesdays, 6:30–9:30 pm
March 29–May 31
Berkeley Campus: 175 Barrows Hall • $595
Building Database Systems
X478 • 2 semester units in EECS

A requirement in the Professional Sequence in Database Management, an elective in the Post-Baccalaureate Certificate in Information Systems and Management

Get an overview of database applications, from simple desktop applications to client-server to Web applications. You pay special attention to designing forms and reports, along with additional class exercises, tests, and projects to enhance your learning experience. Upon successful completion, you are able to design and develop effective database applications using simple development tools. You gain broad knowledge of the different application types and the underlying technologies.

Prerequisite: Introduction to Relational Database Management Systems X409.1, or basic understanding of databases

EDP 306928
Michael Kremer, M.S., Ph.D.,
Extension Honored Instructor
10 meetings
Thursdays, 6–9 pm
January 20–March 24
San Francisco: Downtown Center • $645

Concepts of Relational Database Management Systems
X408 • 3 semester units in EECS-DCS

A core course in the Post-Baccalaureate Certificate in Information Systems and Management

Study techniques for creating and using database applications in depth. You learn requirements analysis and specification; logical database design; normalization; database implementation; recovery, concurrency, integrity, and security concerns; and database use. The course curriculum focuses mainly on the relational database model and SQL.

Prerequisite: A programming course in any language or equivalent experience

EDP 846394
Andrew J. Oppel, B.A.
January 18–April 12
Online, proctored final exam • $799

Designing, Building, and Using Databases
X405.4 • 2 semester units in EECS

A requirement in the Microsoft Access Series; an elective in the Professional Sequence in Database Management and in the Post-Baccalaureate Certificate in Information Systems and Management

This course introduces fundamental relational database management system (RDBMS) concepts and data normalization principles, providing a foundation for creating simple tables, queries, forms, and reports. You learn to design basic databases using data normalization rules; create tables and set properties and constraints; create table relationships; design and create queries for viewing, sorting, filtering, and analyzing data; design and create simple forms for data input and data output; use basic database functions in queries; and create charts in forms and reports. Note: Sign up for all three courses now (X405.4, X405.5, and X405.6) and get a $200 discount on your final course. For further information, visit www.ucb-access.org.

You should be comfortable navigating in a Windows environment and performing file management tasks such as copying, moving, and renaming. No database experience is necessary.

EDP 306969
Michael Kremer, M.S., Ph.D.,
Extension Honored Instructor
5 meetings
Saturdays, 8:30 am–3:30 pm
January 22–February 26
(no meeting February 19)
San Francisco: Downtown Center • $695

Professional Sequence in Database Management

The Professional Sequence in Database Management is designed to be more abstract or theoretical than tied to a specific database program. Although you give special consideration to cross-platform issues, expect to use specific database programs to complete examples and assignments. From designing a database and using SQL to interact with that database to developing a user interface (stand-alone, client-server, Web-based), prepare to take the entire database application into consideration.

Curriculum Requirements
The curriculum consists of 4 required courses and 1–2 electives for a total of 144 hours of instruction.

Required Courses
• Introduction to Relational Database Management Systems X409.1 (offered spring and summer terms)
• Managing Databases Using SQL X401.9 (offered summer and fall terms)
• Data Modeling and Database Design X402.5 (offered spring and fall terms)
• Building Database Systems X478 (offered spring term)

Electives Available This Term
• Database Automation Using VBA X405.6
• Designing, Building, and Using Databases X405.4
• Developing Database Applications X405.5
• First Course in Java X429.9
• Intermediate Perl Programming X401
• Introduction to Perl Programming X416.7
• Introduction to the SAS System X405

Learn More
extension.berkeley.edu/spos/dbmgmt.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302844
Microsoft Access Series

Microsoft Access is a scalable, powerful relational database management system that allows you to manage data sets from simple customer lists to more complex inventory and order tracking systems. The Microsoft Access Series offers a three-tiered approach to meet differing levels of experience. Each course provides hands-on instruction with two students per computer at the UC Berkeley Extension computer training facilities.

Curriculum Requirements
The curriculum consists of 3 required courses for a total of 6 semester units (90 hours of instruction).

Required Courses
- Designing, Building, and Using Databases
  X405.4 (offered spring and fall terms)
- Developing Database Applications
  X405.5 (offered spring and fall terms)
- Database Automation Using VBA
  X405.6 (offered spring and fall terms)

Learn More
extension.berkeley.edu/spos/access.html
(510) 642-4151
course@unex.berkeley.edu
Enroll using EDP 312041

Developing Database Applications
X405.5 • 2 semester units in EECS
A requirement in the Microsoft Access Series; an elective in the Post-Baccalaureate Certificate in Information Systems and Management and in the Professional Sequence in Database Management
This course covers data import/export, advanced table properties, advanced queries and basic SQL, forms and reports, macros for automating database tasks, and building menu-driven applications. Topics include data and object import/export features; sophisticated tables using customized formats, input masks, and validation rules; advanced Select queries and SQL subqueries; forms and reports from scratch using all types of controls, including ActiveX; conditional formatting, macros for data validation, and database automation; and menu-driven applications. Note: Sign up for all three courses now (X405.4, X405.5, and X405.6) and get a $200 discount on your final course. For further information, visit www.ucb-access.org.

Prerequisite: Successful completion of Designing, Building, and Using Databases X405.4 or equivalent

EDP 306977
Michael Kremer, M.S., Ph.D.,
Extension Honored Instructor
5 meetings
Saturdays, 8:30 am–3:30 pm
March 5–April 2
San Francisco: Downtown Center • $695

Database Automation Using VBA
X405.6 • 2 semester units in EECS
A requirement in the Microsoft Access Series; an elective in the Post-Baccalaureate Certificate in Information Systems and Management and in the Professional Sequence in Database Management
This course introduces Visual Basic for Applications (VBA) syntax, the Visual Basic Editor programming interface, the event-driven programming model in Microsoft Access, and data access technologies (DAO/ADO). Learn to navigate the VBA environment, create basic programming units, and apply VBA programming elements such as variables and controlling executions. Implement dynamic coding using object models; use form, report, and control events to link program units to your application; create error-handling routines; and DAO/ADO to automate database tasks. Note: Sign up for all three courses now (X405.4, X405.5, and X405.6) and get a $200 discount on your final course. For further information, visit www.ucb-access.org.

Prerequisite: Successful completion of Designing, Building, and Using Databases X405.4 or equivalent

EDP 306985
Michael Kremer, M.S., Ph.D.,
Extension Honored Instructor
5 meetings
Saturdays, 8:30 am–3:30 pm
April 16–May 14
San Francisco: Downtown Center • $695

Quantitative Analysis: Data Mining Using SQL
X407.1 • 1 semester unit in EECS-DCS
A requirement in the Professional Sequence in Quantitative Analysis
Learn how to analyze and mine data with SQL. Beginning with an understanding of SQL fundamentals, advance into the practical uses of SQL data analysis and data mining with real applications. Learn to use Microsoft Excel to further analyze, manipulate, and present your data exploration and data mining findings in tabular and graphical formats. This course is ideal if you want to explore, mine, and analyze data with SQL queries and learn statistical methods to test the results.

EDP 326991
Hamit Gencer, M.S.
3 meetings
Wednesdays, 6:30–10 pm
January 5 and January 12
(also Saturday, January 8, 9 am–6 pm)
Berkeley Campus: 174 Barrows Hall • $410

NEW THIS TERM
Quantitative Analysis: ERWin Data Modeling Essentials
X407.2 • 2 semester units in Computer Science
A requirement in the Professional Sequence in Quantitative Analysis
Learn how to use CA ERwin for enterprise-scale data manipulation. Gain a solid understanding of entity-relationship model (ERM) frameworks—a critical success factor. Then get an introduction to logical data models, modeling methodologies, relationships, and attributes to learn how to apply them immediately. Learn how to assign attributes, work with CA ERwin data models built with CA ERwin’s built-in editors, create keys with the Index Editor, write custom SQL scripts, and process reports with the report tools.

EDP 336057
Hamit Gencer, M.S.
4 meetings
Saturdays and Sundays, 8:30 am–5 pm
March 19–April 3 (no meeting March 26–27)
Berkeley Campus: See Web for updates • $545

NEW THIS TERM
NEW THIS TERM
Quantitative Analysis: Toad for Data Analysts
X407.3 • 1 semester unit in EECS-DCS

A requirement in the Professional Sequence in Quantitative Analysis

Quest Software’s Toad for Data Analysts is a powerful, low-overhead tool that makes database and application development quicker and easier and simplifies database administration tasks. It has the ability to provide comprehensive cross-platform thought leadership, allowing you to extract greater value and performance from your heterogeneous database environment. Learn Toad for data exploration and its role in quantitative analysis. Learn how to use the tool by understanding and utilizing its various functionalities, including Object Explorer, Connections, Queries, Reports, and Automation. Acquire the best practices in database development and administration by examining and using Toad’s enhanced code quality features, scalability, and efficient programming features through its simple GUI.

You must be able to install Toad on your laptop for data analysis assignments inside and outside of class. You must also be able to install SQL Server Express, as this class briefly covers the SQL fundamentals to create a database, load raw data into the database, and create a connection to the database using Toad.

EDP 336032
Hamit Gencer, M.S.
3 meetings
Wednesdays, 6:30–10 pm
February 2 and February 9
(also Saturday, February 5, 9 am–6 pm)
Berkeley Campus: 174 Barrows Hall • $545

NEW THIS TERM
Quantitative Analysis: Using SAP BusinessObjects
X407.4 • 1 semester unit in EECS-DCS

A requirement in the Professional Sequence in Quantitative Analysis

Learn how to develop business intelligence (BI) reports using the SAP BusinessObjects XI Web Intelligence report development tool. Begin with a brief review and understanding of SAP BusinessObjects XI BI software components. Learn and practice the essentials of the SAP BusinessObjects Edge BI report development process using Webl. (Webl is a BO XI BI report development tool that gives business users an easy-to-use interactive and flexible user interface for building and analyzing reports on corporate data using a Web browser.) Explore practical issues and solution scenarios that enable the successful design of Web Intelligence reports. Learn how to create professional BI reports using Webl.

EDP 336024
Hamit Gencer, M.S.
2 meetings
Saturday and Sunday, 8:30 am–5 pm
March 12 and 13
Berkeley Campus: See Web for updates • $410

NEW THIS TERM
Financial Quantitative Analysis and Modeling Using Excel
X407.5 • 1 semester unit in EECS-DCS

Learn to perform financial data analysis and business modeling using the Microsoft Excel analytics package. Examine how to evaluate investments with net present value (NPV) criteria or internal rate of return (IRR). Make financial decisions using the PV, FV, PMT, and IPMT functions in Excel. Through lectures, discussion, and in-class examples, you learn to build analytical models to help your employer increase profits, reduce costs, or manage operations more efficiently.

EDP 336016
Hamit Gencer, M.S.
3 meetings
Wednesdays, 6:30–10 pm
March 2 and March 9 (also Saturday, March 5, 9 am–6 pm)
Berkeley Campus: 174 Barrows Hall • $410

NEW THIS TERM
Adobe ColdFusion: Introduction
X407.6 • 2 semester units in Computer Science

Learn how to use Adobe ColdFusion to create dynamic, data-driven Web applications. Study database design and SQL Query Language fundamentals and ColdFusion programming essentials such as programming with CFML, creating data-driven pages, and forms and form data validation.

Prerequisites: A basic understanding of programming, Web pages, HTML, databases, database design principles, and Structured Query Language (SQL). You must have access to or install ColdFusion (regular or trial version) in order to complete or follow course assignments. You may bring a laptop to class.

EDP 336040
Hamit Gencer, M.S.
4 meetings
Saturdays and Sundays, 8:30 am–5 pm
April 9–April 17
Berkeley: Golden Bear Center • $545

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
UNIX/Linux System Administration Capstone: Case Studies
X462.3 • 2 semester units in EECS

A requirement in the Certificate Program in UNIX/Linux System Administration

This capstone course is designed to expose you to real-world scenarios that occur in the practice of system administration. Gain hands-on experience building a computer from components, installing and configuring an operating system, setting up a network connection and related services, properly securing a system, documenting system configuration, installing and configuring third-party applications (Apache, Perl, MySQL, and PHP), troubleshooting problems, and recovering from a disaster.

Prerequisites: All other courses in the UNIX/Linux System Administration certificate curriculum

EDP 316026
Marcelo Carvalho, M.A.
4 meetings
Saturday, 8:30 am–5 pm
April 30–May 21
San Francisco: Downtown Center • $695

Using the UNIX Operating System
X415 • 3 semester units in EECS-DCS

A core course in the Post-Baccalaureate Certificate in Information Systems and Management

This comprehensive overview of the UNIX operating system introduces you to logging in, the visual editor, file management, text processing, electronic mail, the directory structure, UNIX handling of files and processes, basic shell utilities, and writing shell scripts. (Using UNIX to write programs is not covered.) You learn a conceptual framework and a series of successful interactions with UNIX. Much of the course involves individualized, self-paced learning. Note: The course requires access to a UNIX system or a system capable of running the UNIX operating system.

EDP 897264
James A. Connor, B.S.E.E., M.B.A.
Enroll anytime
Online, proctored final exam • $815
CERTIFICATE PROGRAM IN UNIX/Linux System Administration

Professionals with knowledge of both the UNIX operating system and its open-source counterpart, Linux, are in demand. Get the specialized IT training employers seek with UC Berkeley Extension’s Certificate Program in UNIX/Linux System Administration. Learn how to be an effective administrator of these multitask operating systems, which are both powerful and elegant. Build on your experience in system administration, or discover how you can use the UNIX and Linux systems in your work as a programmer. Whatever role you have or aspire to in systems administration, this professional certificate provides the skills, knowledge, and formal training you need to compete for the higher-level IT positions that increase your job security in today’s global economy.

Curriculum Requirements
The curriculum consists of 7 required courses and 1 elective for a total of 16 semester units (240 hours of instruction).

Required Courses
- UNIX/Linux System Fundamentals X426.1A (offered summer term)
- UNIX/Linux System Administration Programming: Shell, C, and Perl X426.1B (offered fall term)
- UNIX/Linux System Administration I: Essentials X422.8 (offered spring and summer terms)
- UNIX/Linux System Administration II: Networking X420.8 (offered summer term)
- UNIX/Linux System Administration III: Services X444.2 (offered summer term)
- UNIX/Linux System Security X409.9 (offered fall term)
- UNIX/Linux System Administration Capstone: Case Studies X462.3 (offered spring term)

Electives Available This Term
- Intermediate Perl Programming X401
- Introduction to Perl Programming X416.7
- Java: Discovering Its Power X436.2

Learn More and View the Brochure
extension.berkeley.edu/cert/linux.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302679
HANdS-ON  
Introduction to Perl Programming  
X416.7 • 1 semester unit in EECS  
An elective in the Certificate Program in UNIX/Linux System Administration, in the Post-Baccalaureate Certificate in Information Systems and Management, and in the Professional Sequence in Database Management  
Perl is widely used by UNIX and Windows programmers, system administrators, and Web and database programmers. It is an easy-to-learn, extremely powerful extensible language with add-on modules for almost every kind of task imaginable. Perhaps its most powerful feature is that Perl programs run on any operating system with few, if any, changes needed. Learn to write, debug, and understand more complicated Perl programs.  
Prerequisites: Familiarity with UNIX or Windows and experience with a programming language  
EDP 877886  
Carl Limsico, B.A.  
Enroll anytime  
Online • $595

HANdS-ON  
Intermediate Perl Programming  
X401 • 1 semester unit in EECS  
An elective in the Certificate Program in UNIX/Linux System Administration, in the Post-Baccalaureate Certificate in Information Systems and Management, and in the Professional Sequence in Database Management  
This hands-on course is designed to maximize your ability to integrate various computer technologies using Perl. All major intermediate features of Perl are covered, including subroutines, reports, functions, CGI, data structures, references, special variables, and Perl as Web database integration interface (DBI). Class sessions focus on concepts, theory, and case studies, supplemented with lab exercises that guide you to mastery of essential skills through a series of successful interactions with Perl. If you are an IT professional, system administrator, or Web developer who needs to learn this extensible Web programming language, you should benefit from this practical, hands-on approach.  
Prerequisites: See Web  
EDP 306951  
Christine Bouamaly, M.S.  
5 meetings  
Thursdays, 6:30–9:30 pm  
April 21–May 19  
San Francisco: Downtown Center • $525

Python programming  
X442.3 • 1 semester unit in EECS  
An elective in the Post-Baccalaureate Certificate in Information Systems and Management  
Python, an open-source scripting language that allows rapid application development of both large and small software systems, is object oriented by design and provides an excellent platform for learning the basics of language programming. Learn this language, ideal for team projects, that provides access to databases, CGI programming, system administration, and other useful services.  
Although no previous programming experience is required, you must have access to a computer running Python or access to the Internet to allow you to download Python.  
EDP 877951  
Carl Limsico, B.A.  
Enroll anytime  
Online, proctored final exam • $595

PHP programming for the Web  
X400 • 1 semester unit in EECS  
An elective in the Post-Baccalaureate Certificate in Information Systems and Management  
Learn the fundamentals of PHP: Hypertext Preprocessor, how PHP functions in the Web’s client-server relationship, and how it relates to standard HTML. You gain an understanding of one of the most common uses for PHP: handling the data created by an HTML form. Other topics include writing PHP scripts, using PHP to manage data, and creating Web applications with PHP. You also learn some of PHP’s more advanced features and security issues.  
Prerequisites: You should have a hosted Web site with 10 MB of disk space, MySQL, and PHP. In general, most Web hosts offer workable sites. Free PHP Web-hosting options are also available.  
EDP 897405  
Robert Adams Jr., M.S.C.S., M.S.E.E.  
Enroll anytime  
Online • $595

C++ Programming I  
X412.1 • 2 semester units in EECS  
An elective in the Post-Baccalaureate Certificate in Information Systems and Management  
C++ is a popular, widely used object-oriented programming (OOP) language. C++ provides all the tools for OOP, such as data abstraction, inheritance, polymorphism, and generic programming. Get a solid introduction to all the major features of ANSI standard C++, including the newer syntactic and semantic constructs, studying each concept through lucid, fluent examples. Prepare to learn all major features of C++, including objects, classes, pointers, and single and multiple inheritance.  
Prerequisites: Some programming experience with languages like C, Java, C#, or Visual Basic is preferable. Access to a C++ compiler is required.  
EDP 877860  
Robert Adams Jr., M.S.C.S., M.S.E.E.  
Enroll anytime  
Online, proctored final exam • $715

C# Programming I  
X444.3 • 1 semester unit in EECS  
An elective in the Post-Baccalaureate Certificate in Information Systems and Management  
Get an introduction to C# development using Microsoft Visual Studio, with particular focus on C# syntax, logic constructs, application development, exception handling, and the object-oriented nature of the language. You are also introduced to debugging C# applications, the Microsoft .NET Framework, aspects of the .NET object hierarchy, and how to use C# in a .NET application environment.  
Prerequisites: Understanding of C, C++, Java, or Visual Basic and access to a computer running Windows NT/2000/XP/2003 and Visual Studio  
EDP 897413  
Laura Malave, M.S.  
Enroll anytime  
Online, proctored final exam • $595

Introduction to C Language Programming  
X24 • 2 semester units in EECS  
An elective in the Post-Baccalaureate Certificate in Information Systems and Management  
Learn the C programming language and fundamental programming concepts. Gain the knowledge to write simple C language applications and undertake courses that assume some background in computer programming. Topics include variables, data types, functions, control structures, pointers, strings, arrays, and dynamic allocation principles. You need access to any programming environment that allows you to write, edit, compile, link, and debug a C program.  
Familiarity with fundamental programming language concepts such as variables, data types, and compiling source code is helpful.  
EDP 867879  
Robert Adams Jr., M.S.C.S., M.S.E.E.  
Enroll anytime  
Online • $595

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Java

**First Course in Java**
X429.9 • 2 semester units in EECS
An elective in the Post-Baccalaureate Certificate in Information Systems and Management and in the Professional Sequence in Database Management

Java—with its platform independence and support for animation, graphics, and sound—is heavily used in interactive Web pages that work on Windows, Macintosh, UNIX, and other platforms. Learn the Java programming language even if you aren’t a programmer. Examine fundamental programming concepts and statements and basic object-oriented programming, and get an introduction to Java applets. On successful completion of the course, you are not only able to write simple Java applications and applets but also prepared to undertake advanced courses in Java.

You do not need any background in programming to succeed in this course.

**EDP 306936**
Thomas Albert, Ph.D.
10 meetings
Tuesdays, 6:30–9:30 pm
January 18–March 22
San Francisco: Downtown Center • $695

Java: Discovering Its Power
X436.2 • 2 semester units in EECS
A requirement in the Professional Sequence in Java Programming; an elective in the Certificate Program in UNIX/Linux System Administration and in the Post-Baccalaureate Certificate in Information Systems and Management

Java’s platform independence (write once, run anywhere) allows the same code to run on Windows, Macintosh, UNIX, mobile phones, and supercomputers. Java is popular for enterprise applications that run on Web servers. This high-level language enhances productivity and reduces bugs through automatic memory management and strong typing. Learning Java is easier than learning C or C++. Using the free Java Development Kit (JDK 6 SE), you learn practical fundamentals of the Java programming language as well as basic object-oriented programming so that you can write simple applications and take intermediate courses in Java.

Prerequisites: C++ Programming I or equivalent and some experience with object-oriented design and techniques. Familiarity with building graphical user interfaces is helpful.

**EDP 877910**
Carl Limsico, B.A.
Enroll anytime
Online • $715

Advanced Java: Language, Internals, and Techniques
X436.5 • 2 semester units in EECS
A requirement in the Professional Sequence in Java Programming; an elective in the Post-Baccalaureate Certificate in Information Systems and Management

Gain exposure to a broad range of Java Development Kit–related tools and techniques, with emphasis on server-side support, if you are a working Java programmer. Topics include multithreading, reflection, serialization, generics in Java, internationalization, and native methods. You also see what happens inside the JVM and get an overview of related technologies including servlets and JSP, RMI, JavaBeans, JDBC, JDO, JAXP, and the Java security model. On successful completion of this course, you are able to evaluate, select, and integrate vendor/open source implementations that make use of the tools and techniques covered.

Prerequisites: Good programming knowledge of Java and a working knowledge of operating systems and compilers; familiarity with Web technologies such as HTML

**EDP 316034**
Christine Bouamalay, M.S.
10 meetings
Thursdays, 6:30–9:30 pm
February 10–April 14
San Francisco: Downtown Center • $645

Hardware

Organizations running diverse networks and Internet sites that must pass information among Windows NT, Macintosh, and UNIX platforms count on Java as a general-purpose, object-oriented solution to their diverse network requirements. The flexible nature of the language is driving the demand for trained Java programmers. Through the Professional Sequence in Java Programming, you develop the knowledge and skills necessary to put Java to work on real projects.

Curriculum Requirements
The curriculum consists of 3 required courses for a total of 6 semester units (90 hours of instruction).

Required Courses
We recommend taking the courses in the sequence listed.

- Java: Discovering Its Power X436.2 (offered every term and online)
- Advanced Java: Language, Internals, and Techniques X436.5 (offered spring term)
- Advanced Java: Developing with APIs X436.4 (offered summer and fall terms)

Learn More
eXTENSION.BERKELEY.EDU/SPOS/JAVA.HTML
(510) 642-4151
course@unex.berkeley.edu
Enroll using EDP 122234
Linda Joseph has a B.A. in economics and a B.S. in computer science from the University of California, Davis, and an M.B.A. from the Wharton School, University of Pennsylvania. After studying abroad in Italy and teaching English on the side, Joseph knows firsthand that teaching others a new language requires skill and training, not just fluency. “I thought—since I am a native speaker of English—how hard can this be?” she says. “It was harder than I thought. Teaching is an art, but like anything, you have to first learn the fundamentals, and then you can fly.”

Fortunately, the Certificate Program in Teaching English as a Second Language provides the tools to succeed as an ESL teacher. “Second-language acquisition really opened my eyes to what learners of English go through,” Joseph says. “Everyone understands at a surface level that learning a new language is difficult—this certificate goes in depth and exposes the layers underneath.”

Having completed the certificate, Joseph now uses what she has learned at her own business, a skilled-nursing and assisted-living facility. “The TESL program has helped me understand and communicate with fellow employees better,” she says. “I also take one day out of my work week to volunteer in a classroom, and that is my favorite day of the week.”
Whether you’re already a teacher or want a career in education, UC Berkeley Extension offers the education to prepare you for your next step. Fulfill requirements for a teaching credential in adult education or career technical education. Take a class for professional growth, complete a certificate enabling you to teach English as a second language (ESL), or get training to become a college admissions adviser.

At UC Berkeley Extension, you choose the teaching program that fits your needs. Fulfill your California Clear Credential requirement with courses approved by the California Commission on Teacher Credentialing. Or enhance your teaching skills with courses focusing on successful reading techniques, inclusion of students with special needs, strategies for teaching health concepts, integrating technology into the classroom, and other essential topics.

With instructors who are highly qualified teachers and experienced resource specialists, you can be confident that your UC Berkeley Extension education is the best training for success in the classroom.
Free Information Sessions

Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Certificate Program in College Admissions and Career Planning and Professional Program in College Admission Counseling

EDP 208736
Wednesday, December 15, 5:30–7 pm
Belmont: Belmont Center

EDP 206391
Tuesday, May 10, 5:30–7 pm
Berkeley: Golden Bear Center

Certificate Program in Teaching English as a Second Language

EDP 206458
Thursday, January 13, 5:30–7 pm
Berkeley: Golden Bear Center

EDP 206466
Thursday, January 20, 5:30–7 pm
Belmont: Belmont Center

EDP 206474
Tuesday, May 17, 5:30–7 pm
Berkeley: Golden Bear Center

EDP 206482
Thursday, May 19, 5:30–7 pm
Berkeley: Golden Bear Center

Designated Subjects Adult Education and Career Technical Education Teaching Credential Programs

EDP 206441
Thursday, May 12, 5:30–7 pm
Berkeley: Golden Bear Center

Teaching Credential Programs

COURSE INFORMATION

(510) 642-1171
askeducation@unex.berkeley.edu
extension.berkeley.edu/subject/edcredprogram.html

UC Berkeley Extension’s teaching credential programs are approved by the California Commission on Teacher Credentialing (CCTC) as meeting the requirements for teacher training.

Free Information Session: Designated Subjects Adult Education and Career Technical Education Teaching Credentials

Find out how you can succeed in a teaching career with a credential in adult education or career technical education from UC Berkeley Extension. For more information about adult education, see p. 111 or visitextension.berkeley.edu/spos/adultedctc.html. For more information about career technical education, see p. 112 or visit extension.berkeley.edu/spos/cateched.html.

EDP 206441
1 meeting
Thursday, 5:30–7 pm
May 12
Berkeley: Golden Bear Center • FREE

Instructional Strategies for the Adult and Adolescent Learner (Level I)

X3873 • 2 semester units in Education

A requirement in the Designated Subjects Adult Education and Career Technical Education teaching credentials

Engage in a study of instructional strategies, activities, and materials appropriate for teaching adult and adolescent learners. Learn about effective planning and clear presentation of instruction, including the role of computers in adult and adolescent instruction and motivational strategies for learners. Other topics include techniques for promoting positive interpersonal relationships in the classroom, school, and community; techniques for group facilitation; and principles of learner-centered instruction.

EDP 206573
James Iler, M.A.
4 meetings
Sundays, 9 am–5:30 pm
January 9–February 6, 9 am–5:30 pm
(no meeting January 16)
Berkeley: Golden Bear Center • $475

Critical Issues in Public Education: Class, Culture, Race, Ethnicity, and Gender (Level I)

X344.2 • 2 semester units in Education

A requirement in the Designated Subjects Adult Education Teaching Credential

Examine the sociocultural and political perspectives that influence public education, and explore the complex ways that class, culture, race, ethnicity, and gender affect educational practice and process.

EDP 206144
Erma Jean Sims, M.P.A., J.D.
4 meetings
Saturdays, 9 am–5:30 pm
February 12–March 12 (no meeting February 19)
Berkeley Campus: See Web for updates • $475

Curriculum Design in Vocational Education (Level I)

X338A • 2 semester units in Education

A requirement in the Designated Subjects Career Technical Education Teaching Credential

Learn to design a carefully sequenced curriculum that builds on prior learning, as well as to prepare each lesson with the appropriate performance objectives, learning strategies, and evaluation techniques. In addition, you also learn how to provide a safer, effective learning environment and how to foster students’ respect for safety practices in work areas.

EDP 206557
Daniene Marciano, Ed.D.
4 meetings
Sundays, 9 am–5:30 pm
March 20–April 10
Berkeley: Golden Bear Center • $475
EDUCATION

Integrating Technology into Adult and Vocational Education (Level II)

X366.3B • 1 semester unit in Education

A requirement in the Designated Subjects Adult Education and Career Technical Education teaching credentials

Explore in-depth strategies for using computer technologies to improve the instructional process. Hands-on experience is emphasized, including effective use of computer software, the Internet, online communication, distance learning, and related technologies.

Prerequisite: Integrating Technology into Adult and Vocational Education (Level I) X366.3A

EDP 206797
Instructor to be announced
2 meetings
Saturdays, 9 am–5:30 pm
May 7 and May 14
Berkeley: Golden Bear Center • $295

Counseling, Guidance, and Professional Relationships in Adult Education (Level II)

X366.6 • 2 semester units in Education

A requirement in the Designated Subjects Adult Education Teaching Credential

Develop specific strategies for increasing student motivation and retention (including goal setting, assessment and feedback, and life relevance) and for connecting students to support services. You also review governance and advisory structures, legislation, funding, and grant writing.

EDP 206409
Instructor to be announced
4 meetings
Sundays, 9 am–5:30 pm
May 1–May 22
Berkeley: Golden Bear Center • $475

Designated Subjects Adult Education Teaching Credential

UC Berkeley Extension’s Designated Subjects Adult Education (DSEA) Teaching Credential, approved by the California Commission on Teacher Credentialing (CCTC), opens classroom doors in a range of academic subject areas, whether you already hold a teaching position or desire to enter the field. Learn from industry professionals and get up-to-date training in education technology, curriculum development, and student evaluation. Understand instructional strategies, activities, and materials appropriate for adult learners with diverse needs. Develop methods to increase student motivation and retention. The credential program maximizes your previous life experience to improve your teaching skills or start a new career in the classroom.

Required Courses

- Perspectives on the Adult Learner (Level I) X351.8A (offered fall term)
- Instructional Strategies for the Adult and Adolescent Learner (Level I) X387.3 (offered spring term)
- Assessment and Evaluation in Adult and Vocational Education (Level I) X366 (offered summer term)
- Integrating Technology into Adult and Vocational Education (Level I) X366.3A (offered fall term)
- Critical Issues in Public Education: Class, Culture, Race, Ethnicity, and Gender (Level I) X344.2 (offered spring term)
- Curriculum for the Adult Learner (Level II) X325 (offered summer term)
- Integrating Technology into Adult and Vocational Education (Level II) X366.3B (offered spring term)
- Counseling, Guidance, and Professional Relationships in Adult Education (Level II) X366.6 (offered spring term)

Curriculum Requirements

The curriculum for the full-time credential consists of 8 required courses for a total of 14 semester units (210 hours of instruction).

A part-time credential is also available. See the Web for curriculum details.

Learn More and View the Brochure
extension.berkeley.edu/spos/adultedctc.html
(510) 642-1171
askeducation@unex.berkeley.edu

Professional Program in Adult Education

A teaching credential is not required for many adult education positions, but skilled, knowledgeable teachers are always in demand. UC Berkeley Extension’s Professional Program in Adult Education prepares you for a career teaching adults in a variety of learning environments and improves your skills if you are already a professional teacher or trainer. Learn from industry professionals, and get up-to-date training in education technology, curriculum development, and student evaluation.

Required Courses

- Instructional Strategies for the Adult and Adolescent Learner (Level I) X387.3 (offered spring term)
- Assessment and Evaluation in Adult and Vocational Education (Level I) X366 (offered summer term)
- Integrating Technology into Adult and Vocational Education (Level I) X366.3A (offered fall term)

Electives

For a current list of electives, visit extension.berkeley.edu/spos/adulted.html.

Curriculum Requirements

The curriculum consists of 3 required courses and 1 approved elective for a total of 6–8 semester units (90–120 hours of instruction).

Learn More and View the Brochure
extension.berkeley.edu/spos/adulted.html
(510) 642-1171
askeducation@unex.berkeley.edu

Enroll using EDP 202309

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Designated Subjects Career Technical Education Teaching Credential

UC Berkeley Extension’s Designated Subjects Career Technical Education (DSCTE) Teaching Credential, approved by the California Commission on Teaching Credentialing (CCTC), opens classroom doors in a range of career technical subject areas by enabling you to teach what you know best. Learn from industry professionals, and get up-to-date training in education technology, curriculum development, and student evaluation. Understand instructional strategies, activities, and materials appropriate for adult and youth learners with diverse needs. Develop methods to increase student motivation and retention. The credential program maximizes your previous work experience to start a new career in teaching.

**Required Courses**
- Early Orientation X366.13 (offered every term)
- Instructional Strategies for Career Technical Education X366.14 (offered fall term)
- Integrating Technology into Career Technical Education X366.15 (offered summer term)
- Curriculum Design and Assessment in Career Technical Education X366.16 (offered spring term)
- SDAIE/Special Needs for Career Technical Education X366.17 (Level II) X366.4 (offered spring term)
- Career Technical Education Foundations (Level II) X366.18 (offered summer term)
- Advanced Preparation Portfolio for Career Technical Education A X366.19 (offered summer term)
- Advanced Preparation Portfolio for Career Technical Education B X366.20 (offered future term)

**Curriculum Requirements**

The curriculum consists of 8 required courses for a total of 14 semester units (210 hours of instruction).

Learn More
extension.berkeley.edu/spos/cateched.html
(510) 642-1171
askeducation@unex.berkeley.edu

**Professional Program in Career Technical Education**

A teaching credential is not required for many career technical education positions, but skilled, knowledgeable teachers are always in demand. UC Berkeley Extension’s Professional Program in Career Technical Education prepares you for a career teaching in a variety of learning environments and improves your skills if you are already a professional teacher or trainer. Learn from industry professionals, and get up-to-date training in education technology, curriculum development, and student evaluation.

**Required Courses**
- Instructional Strategies for the Adult and Adolescent Learner (Level I) X387.3 (offered spring term)
- Assessment and Evaluation in Adult and Vocational Education (Level I) X366 (offered summer term)
- Vocational Education Foundations (Level II) X366.4 (offered summer term)

**Electives**
For a list of available electives, visit extension.berkeley.edu/spos/voced.html.

**Curriculum Requirements**

The curriculum consists of 3 required courses and 1 approved elective for a total of 7–9 semester units (105–135 hours of instruction).

Learn More
extension.berkeley.edu/spos/voced.html
(510) 642-1171
askeducation@unex.berkeley.edu

Enroll using EDP 202317

**Early Orientation**

X366.13 • 1 semester unit in Education

A requirement in the Designated Subjects Career Technical Education Teaching Credential

Get the theoretical background and skills essential for success as a beginning career technical educator. Expect an overview of teaching methods, learning styles, lesson planning, career technical education concepts, equity and diversity in the classroom, mandated reporting, and legal and ethical issues. You further study these competencies in later coursework.

**Prerequisite:** Advising session or consent of instructor and program director

**Sec. 1 EDP 206326**
Rod McLean, M.A.
2 meetings
Saturday, 9 am–5:30 pm
January 22 and January 29
Berkeley: Golden Bear Center • $295

**Sec. 2 EDP 206565**
Vicki Pontius, Ed.D.
2 meetings
Saturday, 9 am–5:30 pm
March 12 and March 19
Berkeley: Golden Bear Center • $295

**Sec. 3 EDP 206128**
Thomas H. Reid, M.A.
2 meetings
Saturday, 9 am–5:30 pm
May 7 and May 14
Berkeley: Golden Bear Center • $295

**NEW THIS TERM**

SDAIE/Special Needs for Career Technical Education

X366.17 • 2 semester units in Education

A requirement in the Designated Subjects Career Technical Education Teaching Credential

Explore current research-based theories of second-language acquisition and the differences between first- and second-language acquisition and literacy development. Topics include cognitive, linguistic, sociocultural, and affective factors that affect language learning in children of diverse backgrounds. You also learn to use the California English Language Development Test (CELDT) in instructional planning that promotes both language development and academic achievement.

**Prerequisite:** Early Orientation X366.13 or consent of instructor and program director

EDP 206151
Anita Grier, Ed.D.
4 meetings
Sundays, 9 am–5:30 pm
May 1–May 22
Berkeley: Golden Bear Center • $475
NEW THIS TERM
Curriculum Design and Assessment in Career Technical Education

X366.16 • 2 semester units in Education
A requirement in the Designated Subjects Career Technical Education Teaching Credential

Learn the study of curriculum and instructional planning in relation to specific occupations, including the role of integrated academic and career technical education curricula. Topics include the development and coordination of instructional objectives, strategies, activities, safety considerations, materials, and student assessment instruments in the preparation of unit and lesson plans.

Prerequisite: Early Orientation X366.13 or consent of instructor and program director

EDP 206136
Instructor to be announced
4 meetings
Sundays, 9 am–5:30 pm
February 13–March 13 (no meeting February 20)
Berkeley: Golden Bear Center • $475

Credential Fulfillment

COURSE INFORMATION
(510) 642-1171
askeducation@unex.berkeley.edu
extension.berkeley.edu/subject/edcredfulfillment.html

U.S. Constitution Requirement

Introduction to American Politics
Explore the theoretical implications of democracy and justice in this in-depth look into the structure of the American political system.

For course schedule, see p. 142.

Introduction to the History of the United States: From Colonial Settlement to the Civil War
Sharpen your understanding of the people, institutions, and ideologies that shaped the formation of the United States.

For course schedule, see p. 141.

Introduction to the History of the United States: From the Civil War to the Present
Survey U.S. history from the 1870s to the new millennium. Prepare to increase your knowledge of events, institutions, and prominent historic figures while developing skills of historical analysis and interpretation.

For course schedule, see p. 141.

CTC-Approved Courses

Fostering Wellness
X345.4 • 1 semester unit in Education
Fulfills the health education requirement for California teaching credentials

Helping students learn to care for their bodies and make healthy emotional adjustments to the demands and pressures of a fast-paced society is part of the educational process at all grade levels. Learn effective strategies for teaching health concepts in elementary, secondary, and adult classes. Topics include fitness and nutrition, stress and depression, sexuality, and use and abuse of drugs and alcohol. You may use this course to fulfill the health education and nutrition requirements for a Ryan Multiple or Single Subject Credential.

EDP 206581
Donna Wyatt, M.S.
2 meetings
Saturdays, 9 am–5:30 pm
May 14 and May 21
Berkeley: Golden Bear Center • $365

Introduction and Use of Computer Technology (Level II)

X359.5 • 2 semester units in Education

Fulfills the Computer Education Level II requirement for California teaching credentials; an elective in the professional programs in Adult Education and Career Technical Education

Whether your classroom environment is technology-rich or technology-poor, get an overview of current computer technologies you can use and the ethical and legal issues involved in using this technology. Basic knowledge of computer use is required.

Prerequisites: Familiarity with computer basics. In addition, you should have basic familiarity with word processing, spreadsheets, simple e-mail functions, and Internet searches.

EDP 206169
James Iler, M.A.
4 meetings
Saturdays, 9 am–5:30 pm
March 5–March 26
Berkeley: Golden Bear Center • $525

Inclusion of Students with Special Needs in Regular Education

X370.4 • 2 semester units in Education

Fulfills the special education, or “mainstreaming,” requirement for California teaching credentials

Develop teaching and management skills that facilitate learning by students with special needs in the mainstream classroom. Learn about topics such as special education history, legislation, programs, services, and trends; the terminology and characteristics of disabling conditions; and strategies for modifying the regular education program. You may use this course to fulfill the mainstreaming requirement for the Ryan Multiple or Single Subject Credential on direct application to the Commission on Teacher Credentialing.

EDP 206110
Nina Ghiselli, Psy.D.
4 meetings
Saturdays and Sundays, 9 am–5:30 pm
April 9–April 17
San Francisco: Art and Design Center • $525
CLAD Through CTEL Program

UC Berkeley Extension’s certification program for K–12 teachers helps you gain effective skills and knowledge to teach English learners, or students whose native language is not English. Approved in summer 2009 by the state of California’s Commission on Teacher Credentialing (CCTC), the CLAD Through CTEL Program meets the updated competencies required for CLAD certification of K–12 teachers. Teachers who take this classroom-based curriculum do not need to take the CTEL exam. In this program, you gain a clear understanding of language systems, how children of diverse backgrounds acquire language, and standards-based assessments and instruction for English learners.

Prerequisites
A CLAD Through CTEL Program application and a valid California teaching credential.

Required Courses
- CTEL O: Orientation: CLAD Through CTEL (offered every term)
- CTEL 1: Culture and Inclusion X374.A (offered summer and fall terms)
- CTEL 2: Language and Language Development X374.B (offered summer and fall terms)
- CTEL 3: Foundations and Methods of English Language/Literacy Development and Content Instruction, SDAIE X374.B (offered spring and summer terms)
- CTEL 4: Foundations and Methods of English Language/Literacy Development and Content Instruction, SDAIE X374.D (offered spring and summer terms)
- CTEL 5: Language and Literacy Development and Content Instruction, SDAIE X374.C (offered every term)
- CTEL P: Portfolio X374.P (offered every term)

Curriculum Requirements
The curriculum consists of 6 required courses for a total of 13 semester units (195 hours of instruction). You may take individual courses in this program for academic credit; however, you must complete the entire curriculum to satisfy requirements for the CLAD Through CTEL Program.

Learn More
extension.berkeley.edu/spos/clad.html

CLAD Through CTEL

CTEL 0: Orientation: CLAD Through CTEL

0.2 ceu
A requirement in the CLAD Through CTEL Program
Gain a clear understanding of the CLAD Through CTEL Program, including its scope and goals, requirements, standards, the procedures that affect competencies, and field experience.

EDP 206540
Louise Malandra, Ed.D.
1 meeting
Thursday, 5:30–7:30 pm
January 6
Berkeley: Golden Bear Center • $25

CTEL 4: Foundations and Methods of English Language/Literacy Development and Content Instruction, SDAIE
X374.D • 4 semester units in Education
Fulfills SDAIE requirement for the CTC Certificate of Completion of Staff Development; a requirement in the CLAD Through CTEL Program
Explore current research-based theories of second language acquisition and the differences between the first and second language and literacy development. Topics include cognitive, linguistic, sociocultural, and affective factors that affect language learning in children of diverse backgrounds; use of the California English Language Development standards and the English Language Development Test (CELDT) in instructional planning that promotes language development and academic achievement; and research-based approaches and methods for English-language development in the areas of listening, speaking, reading, and writing as they relate to communicative competence.

Note: Because the foundation for CTEL 3: Assessment of English Learners is provided in CTEL 4: Foundations and Methods of English Language/Literacy Development and Content Instruction, it is recommended that you take CTEL 4 X374.5 before taking CTEL 3 X374.C.

EDP 206417
Anita Grier, Ed.D.
8 meetings
Saturdays, 9 am–5:30 pm
January 22–March 19 (no meeting February 19)
Berkeley: Golden Bear Center • $580

Professional Program in English Learner Pedagogy

The Professional Program in English Learner Pedagogy gives you the teaching skills and knowledge needed to work successfully in any learning environment with English learners, or students whose native language is not English. You learn from outstanding professionals in the field and gain the latest in language acquisition, the foundations and methods of English language instruction, and the assessment of English learners.

Required Courses
- CTEL O: Orientation: CLAD Through CTEL (offered every term)
- CTEL 1: Culture and Inclusion X374.A (offered summer and fall terms)
- CTEL 2: Language and Language Development X374.B (offered summer and fall terms)
- CTEL 3: Foundations and Methods of English Language/Literacy Development and Content Instruction, SDAIE X374.D (offered spring and summer terms)
- CTEL 4: Assessment of English Learners X374.C (offered spring and summer terms)
- CTEL 5: Language and Literacy Development and Content Instruction, SDAIE X374.C (offered every term)

Curriculum Requirements
The curriculum consists of an orientation and 4 required courses for a total of 12 semester units and 0.2 ceu (182 hours of instruction).

Learn More
extension.berkeley.edu/spos/pedagogy.html
(510) 642-1171
askeducation@unex.berkeley.edu

Enroll using EDP 202325
CTEL 3: Assessment of English Learners
X374.C • 2 semester units in Education
A requirement in the CLAD Through CTEL Program
Learn the principles and design of standards-based assessments and instruction for English-language learners and the relationship to identification of students’ strengths and needs in English language and literacy development and academic achievement. Note: Because the foundation for CTEL 3: Assessment of English Learners is provided in CTEL 4: Foundations and Methods of English Language/Literacy Development and Content Instruction, it is recommended that you take CTEL 4 before taking CTEL 3.

EDP 206706
Instructor to be announced
4 meetings
Saturdays, 9 am–5:30 pm
April 2–April 30 (no meeting April 16)
Berkeley Campus: See Web for updates • $460

CTEL P: Portfolio
X374.P • 1 semester unit in Education
A requirement in the CLAD Through CTEL Program
This course captures learning and field experiences from each of the courses and connects them in a cohesive manner. All CLAD candidates must complete a CTEL portfolio that documents their experiences, including organized reflections and evidence of knowledge, skills, and abilities.

Enrollment is restricted. Please contact the Education department at (510) 642-1171 for enrollment information.

Prerequisite: Completion of all courses in the CLAD Through CTEL Program

EDP 206433
Instructor to be announced
2 meetings
Sunday and Monday, 9 am–5:30 pm
May 1 and 2
Berkeley: Golden Bear Center • $340

Teaching English as a Second or Foreign Language (TESL/TEFL)

COURSE INFORMATION
(510) 642-1171
askeducation@unex.berkeley.edu
extension.berkeley.edu/subject/tesl.html

Free Information Session:
Certificate Program in Teaching English as a Second Language

Learn how UC Berkeley Extension’s professional certificate can prepare you for diverse job opportunities—such as teaching, business, travel, and more—both in the United States and around the world. For information about the certificate, see p. 117 or visit extension.berkeley.edu/cert/tesl.html.

Sec. 1 EDP 206458
1 meeting
Thursday, 5:30–7 pm
January 13
Berkeley: Golden Bear Center • FREE

Sec. 2 EDP 206466
1 meeting
Thursday, 5:30–7 pm
January 20
San Francisco: Downtown Center • FREE

Sec. 3 EDP 206474
1 meeting
Tuesday, 5:30–7 pm
May 17
Belmont: Belmont Center • FREE

Sec. 4 EDP 206482
1 meeting
Thursday, 5:30–7 pm
May 19
Berkeley: Golden Bear Center • FREE

Fundamentals of Linguistics for ESL Teachers
X416 • 3 semester units in Linguistics
A requirement in the Certificate Program in Teaching English as a Second Language

This course introduces concepts in linguistics and sociolinguistics relevant to the teaching of English as a second language (TESL). If you are a TESL certificate student, you should take this course first, as it provides a foundation for other TESL studies.

Sec. 1 EDP 206219
Steven L. West, Ph.D.
13 meetings
Mondays, 6–9 pm
February 14–April 25 (also Saturdays, March 19 and April 2 and 16, 9 am–5 pm; no meeting February 21)
Berkeley: Golden Bear Center • $535

Sec. 2 EDP 206227
Steven L. West, Ph.D.
12 meetings
Thursdays, 6–9 pm
March 24–May 5 (also Saturdays, March 26; April 9, 23, and 30; and May 7, 10 am–4 pm)
San Francisco: Art and Design Center • $535

Methods and Materials for Teaching English as a Second Language
X339.1A • 3 semester units in Education
A requirement in the Certificate Program in Teaching English as a Second Language

Learn traditional and innovative classroom techniques for teaching listening, speaking, reading, and writing skills to speakers of English as a second language in this practical introduction to the field.

Sec. 1 EDP 206177
Sedique Popal, Ed.D., Extension Honored Instructor
15 meetings
Tuesdays, 6–9 pm
January 25–May 3
Berkeley: Golden Bear Center • $535

Sec. 2 EDP 206383
Carol Lethaby, M.A. in TESOL
12 meetings
Tuesdays, 6–9 pm
February 8–April 5 (also Saturdays, February 5 and 12 and March 5; 10 am–4:30 pm)
San Francisco: Downtown Center • $535
Grammar Fundamentals for ESL Teachers
X338 • 2 semester units in Education
A requirement in the Certificate Program in Teaching English as a Second Language

Get an in-depth review of basic grammar topics that have particular importance in the ESL classroom. You also gain an understanding of the special difficulties that arise in learning a second language and the reasons that these problems occur.

Sec. 1 EDP 206193
Angela Blackwell, M.A. in TESOL
10 meetings
Mondays, 6–9 pm
February 7–April 25 (no meeting February 21 and March 28)
San Francisco: Art and Design Center • $500

Cross-Cultural Communication
X339.4 • 2 semester units in Education
A requirement in the Certificate Program in Teaching English as a Second Language

Examine the values, customs, mores, and communication styles of cultural groups, with emphasis on their implications for teaching. Learn to interpret the communicative behavior of a student and to explain how conversational behavior differs from culture to culture.

EDP 206185
Steven L. West, Ph.D.
11 meetings
Sundays, 9:30 am–2 pm
March 13–May 1 (no meeting April 24)
Berkeley: Golden Bear Center • $500

Second-Language Acquisition
X334 • 3 semester units in Education
A requirement in the Certificate Program in Teaching English as a Second Language

Review the theories of first- and second-language acquisition, comparing and contrasting issues involved in both. In addition, you carefully examine theories of bilingualism.

Prerequisite: Fundamentals of Linguistics for ESL Teachers X416

EDP 206235
Sedigheh Popal, Ed.D., Extension Honored Instructor
6 meetings
Saturdays, 9 am–5 pm
February 5, March 5, March 19, April 2, April 23, and May 7
Berkeley Campus: See Web for updates • $535

Teaching Pronunciation as a Communicative Skill
X339.7 • 1 semester unit in Education
A requirement in the Certificate Program in Teaching English as a Second Language

Compare different teaching solutions to specific pronunciation problems, and learn practical techniques for creating lively and effective pronunciation lessons. You examine American English pronunciation, including stress, rhythm, intonation, and consonants and vowels. You also explore the linguistic and psychological factors affecting communicative clarity. Coursework includes hands-on experience as a tutor.

Sec. 1 EDP 206599
Carol Lethaby, M.A. in TESOL
5 meetings
Wednesdays, 6–9 pm
February 16–March 16
San Francisco: Downtown Center • $395

Specialized Courses in TESL/TEFL

Teaching English Abroad
X338.1 • 1 semester unit in Education
This course, intended for teachers and prospective teachers who are looking for overseas assignments, examines crucial issues such as the culture shock experienced on going to other countries and then returning to the United States, adaptation of U.S. materials to the overseas classroom, and the history and politics of language study in other countries. Practical matters such as finding overseas teaching positions, negotiating contracts, and dealing with the expectations of overseas administrators and colleagues are also considered.

EDP 206607
Carol Lethaby, M.A. in TESOL
3 meetings
Saturdays, 10 am–3 pm
March 26–April 9
Berkeley Campus: See Web for updates • $90

Practicum in Course Design for ESL/EFL Teachers
X327.1 • 3 semester units in Education
A requirement in the Certificate Program in Teaching English as a Second Language

Build on prior coursework in methodology, second-language acquisition, linguistics, and cross-cultural communication, and gain project-based practical experience in the fundamentals of course design. Move through the curriculum cycle from needs assessment to objective writing to lesson and material development to evaluation. Embedded in the course are exercises in teaching techniques, classroom management, and testing and assessment. Enrollment is restricted. Please call the Education department at (510) 642-1171 for enrollment information.

Prerequisite: Completion of all coursework for the Certificate Program in Teaching English as a Second Language

Sec. 1 EDP 206243
Ilze Duarte, Ph.D.
15 meetings
Thursdays, 6–9 pm
January 27–May 12 (no meeting April 28)
Berkeley • Golden Bear Center • $940

Sec. 2 EDP 206532
Angela Blackwell, M.A. in TESOL
7 meetings
Saturdays, 10 am–5 pm
January 29, February 12, February 26, March 5, April 2, April 23, and May 7
San Francisco: Downtown Center • $940
Certificate Program in Teaching English as a Second Language

The increasing use of English in the world has opened career opportunities for teachers of English as a second language (ESL). ESL educators work all over the world in fields such as business, travel, publishing, and education. They work in countries where English is spoken primarily as a foreign language, as well as in countries where English is the dominant language. In English-speaking countries, ESL teachers work with immigrants and refugees at all levels of the education system, including adult education.

Teaching ESL requires skills beyond just fluency in the English language. It is a multifaceted academic discipline requiring training in linguistics, second-language acquisition, language pedagogy, methodology, materials development, assessment and evaluation, curriculum and syllabus design, and cross-cultural communication. Teaching in California adult schools requires an adult education credential; teaching at the community college level requires either a master’s degree in Teachers of English to Speakers of Other Languages (TESOL) or a master’s in a related field and the TESL certificate. All courses in the Certificate Program in Teaching English as a Second Language (TESL) can be applied toward an M.A. with TESOL emphasis at St. Mary’s College and the University of San Francisco. Please contact the department for information on additional partnerships with Bay Area graduate TESOL programs.

Curriculum Requirements
The curriculum consists of 7 required courses for a total of 17 semester units (255 hours of instruction).

Required Courses
- Fundamentals of Linguistics for ESL Teachers X416 (offered every term)
- Methods and Materials for Teaching English as a Second Language X339.1A (offered every term)
- Cross-Cultural Communication X339.4 (offered every term)
- Second-Language Acquisition X334 (offered every term)
- Teaching Pronunciation as a Communicative Skill X339.7 (offered every term)
- Grammar Fundamentals for ESL Teachers X338 (offered every term)
- Practicum in Course Design for ESL/EFL Teachers X327.1 (offered every term)

Learn More and View the Brochure
extension.berkeley.edu/cert/tesl.html
(510) 642-1171
askeducation@unex.berkeley.edu
Enroll using EDP 202127

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- PRACTICAL CLASSROOM EXPERIENCE
- GUIDANCE FROM EXPERIENCED ESL/EFL PRACTITIONERS
- TRAINING TO TEACH STUDENTS OF ALL AGES
- READINESS FOR CAREERS IN U.S. AND INTERNATIONAL BUSINESS AND EDUCATION
College Admissions and Career Planning

COURSE INFORMATION
(510) 642-1171
askeducation@unex.berkeley.edu
extension.berkeley.edu/subject/edcounseling.html

Free Information Session:
Certificate Program in College Admissions and Career Planning
and Professional Program in College Admission Counseling

Call (510) 642-4111 to reserve your space. There is no charge or obligation to enroll.
For more information, see p. 119 or visit extension.berkeley.edu/cert/college.html.

EDP 208736
1 meeting
Wednesday, 5:30–7 pm
December 15
Belmont: Belmont Center • FREE

EDP 206391
1 meeting
Tuesday, 5:30–7 pm
May 10
Berkeley: Golden Bear Center • FREE

College Admissions Advising A
X369.3 • 4 semester units in Education
A requirement in the Certificate Program in College Admissions and Career Planning and in the Professional Program in College Admission Counseling

Get an introduction to the critical components of college admissions advising, including needs assessment, financial planning, and researching higher education options.

EDP 206334
Peggy Hock-McCalley, Ph.D., and Catherine “Katy” Murphy, M.A.
13 meetings
Saturdays, 9 am–5 pm
January 8–February 26 (also Tuesdays, January 11–February 22, 6–9 pm; no meeting January 15 and February 19)
Belmont: Belmont Center • $970

College Admissions Advising B
X369.4 • 4 semester units in Education
A requirement in the Certificate Program in College Admissions and Career Planning and in the Professional Program in College Admission Counseling

This course is a continuation of College Admissions Advising A and provides comprehensive information on the college selection process, admissions testing, the college application and essay, financial aid, and admissions considerations for special needs populations (including athletes and disabled, reentry, foreign, and underrepresented students).

Prerequisite: College Admissions Advising A X369.3
EDP 206342
Peggy Hock-McCalley, Ph.D. and Catherine “Katy” Murphy, M.A.
12 meetings
Saturdays, 9 am–5 pm
March 26–May 7 (also Tuesdays, March 29–May 3, 6–9 pm; no meeting April 23)
Belmont: Belmont Center • $970

Career Planning for College Admissions
X369.5 • 4 semester units in Education
A requirement in the Certificate Program in College Admissions and Career Planning

This hands-on course utilizes career assessment tools to help educators, counselors, and others interested in career planning for all ages. Topics include assessment, theory, and methods to motivate clients to achieve their goals.

EDP 206359
Steve Pantell, Ph.D.
8 meetings
Saturdays, 9:30 am–5:30 pm
January 22–March 19 (no meeting February 19)
Berkeley Campus: See Web for updates • $970
Certificate Program in College Admissions and Career Planning

School counselors must adapt to meet the diverse needs of today’s students. UC Berkeley Extension’s Certificate Program in College Admissions and Career Planning provides the in-depth knowledge and technical skills necessary for you to help students transition from high school to college or from college to a professional career. Experienced instructors offer insight to all areas, including admissions requirements for public, private, local, national, and international institutions; financial aid options and planning; techniques to advise special populations; counseling skills; self-appraisal instruments and interpretation; strategies for college admissions tests, essays, and recommendation letters; and uses of technology in college and career planning. The curriculum gives special attention to training in the college admissions process while emphasizing the connection to the world of work, including field site observations and a comprehensive practicum. With a certificate from UC Berkeley Extension, you’re ready to not only help others but also advance your own career.

Curriculum Requirements
The curriculum consists of 5 required courses for a total of 15 semester units (216 hours of instruction).

Required Courses
- College Admissions Advising A X369.3 (offered spring and summer terms)
- College Admissions Advising B X369.4 (offered spring and fall terms)
- Career Planning for College Admissions X369.5 (offered spring and fall terms)
- Counseling Techniques for Educators X365.6 (offered every term)
- Practicum in College Admission Advising X361.9 (offered spring and fall terms)

Learn More and View the Brochure
extension.berkeley.edu/cert/college.html
(510) 642-1171
askeducation@unex.berkeley.edu
Enroll using EDP 202150
Counseling Techniques for Educators
X365.6 • 2 semester units in Education
A requirement in the Certificate Program in College Admissions and Career Planning
Gain familiarity with counseling approaches that counselors, teachers, administrators, and others can use in K–12 and university settings. You learn and practice the basic tenets of Carkhuff’s Human Resource Development (HRD) Model in order to gain competence in the application of basic counseling skills.

Sec. 1 EDP 206631
Maureen Casey, M.A.
5 meetings
Wednesdays, 6–9 pm
March 2–March 16 (also Saturdays, March 5, 12, and 19, 9 am–5:30 pm; no meeting March 9)
Belmont: Belmont Center • $485

Sec. 2 EDP 206367
Aubrey Uresti, M.A., PPS
4 meetings
Sundays, 9 am–5:30 pm
March 20–April 10
Berkeley: Golden Bear Center • $485

Sec. 3 EDP 206516
Suzy Thomas, M.A., Ph.D., PPS
4 meetings
Sundays, 9 am–5:30 pm
March 20–April 10
Berkeley: Golden Bear Center • $485

NEW THIS TERM
Practicum in College Admission Advising
X361.9 • 1 semester unit in Education
A requirement in the Certificate Program in College Admissions and Career Planning
Deepen your knowledge and skills by completing 40 hours of involvement at a high school or nonprofit organization working with high school students exploring the transition to college. You choose from a list of UC Berkeley Extension-approved organizations or propose an alternative fieldwork location approved by the course instructor and the placement site. Fieldwork is accompanied by classroom guidance and collaboration with fellow students and the instructor, who is an experienced college adviser.

EDP 206649
Peggy Hack-McCalley, Ph.D.
3 meetings
Thursdays, 6:30–9:30 pm
February 10, March 10, and May 5
Belmont: Belmont Center • $395

Professional Development for Educators

Course Information
(510) 642-1171 askeducation@unix.berkeley.edu extension.berkeley.edu/subject/eddevelopment.html

Online Course Information
(510) 642-4231 online@unix.berkeley.edu extension.berkeley.edu/online

Technology in Education

Unless otherwise stated in course descriptions, these Technology in Education courses are for educators without specific technical skills. If you have any questions, please call the Education department at (510) 642-1171.

Digital Storytelling for Teachers
X305.9 • 1 semester unit in Education
Digital storytelling is the art of using photographs, video, spoken words, music, and sound to create a multimedia production to tell a story or communicate a desired idea or theme. In this fun, hands-on class, you create a short movie from your own words, images, and sounds.

Today’s students want to be engaged in their own learning and inspired to develop their skills and talents, and they want to tell stories using technology. By incorporating digital storytelling projects into learning, you can reach students and help them to develop the skills they need to be successful in a complex, technology-rich world. Learn what students and teachers in classrooms around the world understand; this approach to learning is an exciting and compelling way to engage students in the learning process and to inspire them to become lifelong learners.

EDP 206656
David Casuto, M.Ed., M.A.
2 meetings
Sundays, 9 am–4:30 pm
April 10 and April 17
San Francisco: Art and Design Center • $295

Web 2.0 Technologies for Teachers
X360.9 • 1 semester unit in Education
Gain fluency with current technologies so that you can better integrate them into your curriculum and promote tech-literate students. These Web 2.0 tools and technologies encourage collaboration and communication within K–12 classrooms; they are also free to use and accessible to anyone with an Internet connection. Learn how easy it can be to incorporate online software into your lesson plans and ultimately to support your efforts to uphold California State Board of Education content standards.

EDP 206664
David Casuto, M.Ed., M.A.
2 meetings
Sundays, 9 am–4:30 pm
May 1 and May 8
San Francisco: Art and Design Center • $295

Basic Instructional Design
X331.9 • 3 semester units in Economics
Careful planning is the key to designing a strong educational program. The developer’s first step consists of integrating expected outcomes with knowledge of adult learning theories, learning styles, and student needs (assessment). Learn theories, models, and basic principles of instructional design. You also get the opportunity to move through the design process from conducting a needs analysis for prospective students to the design and development phases to evaluation.

EDP 206615
Linda Pfeifer, M.A., Ed.D.
15 meetings
Thursdays, 6:30–9:30 pm
February 3–May 12
Berkeley Campus: 2301 Tolman Hall • $550

Curriculum Design for the Online Classroom
X390.2 • 3 semester units in Education
Examine elements of effective instructional design for the distance learning (online) environment. The dynamic instructor guides you through the conversion and development of course material for an online course. Learn how to create tailored instructional models for delivery in a variety of media formats based on course objectives, target audience, subject matter content, class management, and assessment methods. You gain an understanding of how to use techniques and assessment tools effectively to evaluate student outcomes and the effectiveness of instructional design.

EDP 206623
Linda Pfeifer, M.A., Ed.D.
9 meetings
Saturdays, 9 am–3 pm
January 22–April 30 (no meeting February 5 and 19, March 5 and 26, and April 2 and 16)
Berkeley Campus: See Web for updates • $550

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Best Practices in Education Technology
X397.4 • 3 semester units in Education
Learn best practices in education technology, the latest research findings, and real-world case studies that demonstrate success in this field. Keep up-to-date with current topics and changes in the rapidly evolving educational technology landscape. Learn skills applicable to classroom teaching, school administration, or curriculum development. Engage your increasingly tech-savvy students in an exciting and dynamic 21st-century classroom environment.

EDP 206755
John Krull
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 5
Berkeley Campus: 107 Genetics & Plant Biology Building • $550

Introduction and Use of Computer Technology (Level II)
X337.2 • 2 semester units in Education
Become a fluent, critical user of technology and prepare your students to be lifelong learners in an information-based, interactive society.

For course schedule, see p. 113.

Web Design for Educators
X331.6 • 3 semester units in Education
Gain the knowledge and skills necessary to produce online courses. You explore the theoretical foundations of Internet-based instruction and its practical applications, such as methods for student interaction, evaluation, and functional design. By the course’s end, you should know how to effectively use Internet-based instructional tools (such as hyperlinks, e-mail, newsgroups, chat, evaluation forms, graphics, and multimedia) to design, program, and publish instructional modules on the Internet.

EDP 206771
1 meeting
Saturday, 10 am–1 pm
March 12
Berkeley Campus: See Web for building and room details

Learn More
For additional information, contact the Education department at (510) 642-1171 or e-mail askeducation@unex.berkeley.edu.

Creating Websites with HTML
HTML is the universal language that underpins every page displayed on the Web. Using a straightforward, step-by-step approach, you build Web pages of increasing sophistication and design, acquiring a sound working knowledge of HTML and Web design.

For course schedule, see p. 18.
Teaching Math

MAKING MATH REAL INSTITUTE

The Making Math Real courses are offered in partnership with the Making Math Real Institute, which provides professional development for educators, private practitioners, and parents, as well as intensive development in mathematics for students of all ages. Making Math Real is an innovative, fun, hands-on method of learning math that integrates cognitive development techniques in lessons and activities. Extensive color-coding is a critical element of the program, so please bring four colored markers or pencils in blue, green, red, and black to every class meeting. Register for these courses by paying for tuition and materials at www.makingmathreal.org or by calling (510) 527-0720. For optional academic credit, register and pay separate fees to UC Berkeley Extension prior to the first class meeting.

Making Math Real: Overview

X381.1 • 1 semester unit in Education

This overview course provides the pedagogical foundations and practical applications of implementing and maintaining a comprehensive methodology in mathematics for pre-K through calculus. Learn how and why this multisensory structured approach is entirely different from the way math has been traditionally taught. Tuition fee paid directly to Making Math Real Institute: $349. Fee for academic credit option paid to UC Berkeley Extension: $175.

Prerequisite: This course is the mandatory overview for taking all other Making Math Real courses.

EDP 206276

David Berg, E.T.
2 meetings
Saturday and Sunday, 9 am–5 pm
January 29 and 30
Berkeley: Black Pine Circle School, 2016 Seventh St. • $175

Please do not contact Black Pine Circle School. If you have questions regarding this course, contact the Making Math Real Institute.

Making Math Real: Games!

X305.7 • 1 semester unit in Education

This fun and hands-on course demonstrates how to create, apply, and play high-interest games to provide practice and development for the learning of any math content. This two-day course is designed to show how to effectively implement and integrate games within any learning environment. Focus is on learning to turn any math content into a game across all grade levels. In addition, participants learn to configure these games for a whole class, small group, and individual students. Tuition fee paid directly to Making Math Real Institute: $349. Fee for academic credit option paid to UC Berkeley Extension: $175.

Prerequisite: Making Math Real: Overview X381.1

EDP 206268

Michael Curry, B.A.
2 meetings
Saturday and Sunday, 9 am–5 pm
May 21 and 22
Berkeley: Black Pine Circle School, 2016 Seventh St. • $175

Please do not contact Black Pine Circle School. If you have questions regarding this course, contact the Making Math Real Institute.

Making Math Real: The 9 Lines Intensive

X307.7 • 1 semester unit in Education

This is the only Making Math Real course for learning and applying the 9 Lines symbol imaging mental organizer. This essential course for parents and educators is a comprehensive, in-depth investigation that shows how to maximize the success of the 9 Lines strategy and integrate it into the daily classroom or home experience. Course participants learn how to use the 9 Lines mental organizer in direct application to multiplication, division, fractions, number theory, whole number factoring, and factoring polynomials. Tuition fee paid directly to Making Math Real Institute: $349. Fee for academic credit option paid to UC Berkeley Extension: $175.

Prerequisite: Successful completion of Making Math Real: Overview X381.1 within the past three years

EDP 206292

David Berg, E.T.
2 meetings
Saturday and Sunday, 9 am–5 pm
February 5 and 6
Berkeley: Black Pine Circle School, 2016 Seventh St. • $175

Please do not contact Black Pine Circle School. If you have questions regarding this course, contact the Making Math Real Institute.

Making Math Real: Pre-Algebra

X326.1 • 4 semester units in Education

The cognitive demands of algebra require a strong and comprehensive developmental foundation including recognizing and extending patterns, generalizing, sequential processing, and especially detail analysis. The specific outcome of a successful prealgebra experience is the establishment and full integration of algebraic law that defines and supports all algebraic processes of simplifying and solving. The most critical component of successful instruction and learning is to include all of the incremental steps in every algebraic development. Therefore, course emphasis is on the systematic incrementation and methods of instruction that address the development, refinement, and integration of students’ sensory-cognitive abilities with the application and retention of algebraic problem solving and skills. Topics include units on the four operations with integers and rational numbers, probability, number theory, ratio, proportion and percent, equations, and linear graphing and systems. Tuition fee paid directly to Making Math Real Institute: $994. Fee for academic credit option paid to UC Berkeley Extension: $360.

Prerequisites: Making Math Real: Overview X381.1 and the fraction courses. Some substitutions may apply; see Web for details.

EDP 206284

David Berg, E.T.
8 meetings
Saturdays and Sundays, 9 am–5 pm
February 26 and 27, March 19 and 20, April 2 and 3, and April 16 and 17
Berkeley: Black Pine Circle School, 2016 Seventh St. • $360

Please do not contact Black Pine Circle School. If you have questions regarding this course, contact the Making Math Real Institute.
Teaching Reading and Literacy Development

**Introduction to Language and Literacy Development**

X394 • 3 semester units in Education

Get an overview of the historical, pedagogical, and practical bases of teaching reading and literacy development. Learn current and best practices that are founded on rigorous research in language, learning, and literacy acquisition. This course prepares teachers in grades K–12 to determine the most effective and developmentally appropriate methods to teach reading and places particular emphasis on the needs of struggling readers.

**Prerequisite:** Multiple or single-subject teaching credential

**EDP 206698**
Sandra Williamson, M.A.
6 meetings
Sundays, 9 am–5:30 pm
January 9–February 27 (no meeting January 16 and February 20)
Berkeley: Golden Bear Center • $535

**NEW THIS TERM**

**Observing and Assessing the Young Literacy Learner**

X394.4 • Credit approval pending; see Web for updates

Study the characteristics of the young literacy learner, and explore the most appropriate instructional methods and materials. Learn the roles of oral language and listening as foundations of literacy development, and consider the relationship between home and school as an essential element in the learner’s success. This course emphasizes ways to create effective school contexts for the teaching of reading and literacy and discusses the role of oral language and listening as foundations of literacy development, and consider the relationship between home and school as an essential element in the success of the literacy learner. This course emphasizes the needs of the nonproficient reader.

**Prerequisite:** Multiple or single-subject teaching credential

**EDP 206722**
Instructor to be announced
6 meetings
Sundays, 9 am–5:30 pm
March 6–April 10
Berkeley: Golden Bear Center • $535

**Differentiated Instruction/Flexible Grouping**

X394.3 • 3 semester units in Education

Classroom grouping can enhance instruction and provide opportunities to effectively meet your students’ needs and interests. Get an overview of the ways to balance the instructional day with a variety of grouping plans. You examine the current research on differentiated instruction and models of grouping, assessment strategies and materials, lesson planning, and classroom management. Receive guidance in creating a plan to match instruction with the targeted needs of your students.

**Prerequisite:** Multiple or single-subject teaching credential

**EDP 206680**
Sherri DeFina, M.A.
7 meetings
Sundays, 9 am–5:30 pm
April 17, May 1, May 8, May 15, and May 22 (also Mondays, May 16 and May 23, 6–10 pm)
Berkeley: Golden Bear Center • $535

**NEW THIS TERM**

**Literacy Assessment and Instruction for Intermediate and Advanced Learners**

X394.7 • Credit approval pending; see Web for updates

Examine the teaching of fundamental literacy skills based on the observation and assessment of intermediate learners. Review the characteristics of this literacy learner, explore the most appropriate instructional methods and materials, examine the role of oral language and listening as foundations of literacy development, and consider the relationship between home and school as an essential element in the success of the literacy learner. This course emphasizes the needs of the nonproficient reader.

**Prerequisite:** Multiple or single-subject teaching credential

**EDP 206722**
Instructor to be announced
6 meetings
Sundays, 9 am–5:30 pm
March 6–April 10
Berkeley: Golden Bear Center • $535

**Free Public Event**

**Empowering 21st-Century Teachers and Learners**

Educators, students, and parents are invited to attend this dynamic and innovative free seminar for an inside look at the major trends in Web 2.0—from e-learning to professional development—including important steps that educators, parents, and students can take now to prepare themselves for the changes ahead.

The presentation offers a lively interactive discussion on the many uses of Web 2.0 in education. This hands-on workshop is intended to be much like the Web itself: free, open, participative, and highly collaborative. This public program is also designed to be highly practical, and novices to education technology are invited and encouraged to attend. Prepare to have fun as you learn about these critical technologies for the next generation of lifelong learners!

**EDP 206805**
1 meeting
Saturday, see Web for updated time
April 16
Berkeley Campus: See Web for updates

For additional information, contact the Education department at (510) 642-1171 or e-mail askeducation@unex.berkeley.edu.
Gail Brownell is an environmental engineer with a B.S. from Northwestern University in Illinois and an M.B.A. in operations management from Golden Gate University. Combining this background with an interest in energy efficiency, Brownell is completing the Certificate Program in HVAC to prepare for her next career phase.

“The UC Berkeley Extension HVAC certificate allows me to expand upon my interests and experience,” she says. “Having worked on environmental issues throughout my career, I see that the need for energy efficiency is paramount to deal with climate change.”

The HVAC curriculum provides a wide spectrum of learning to apply at work and at home. “Using our condominium building as an example project in the Building Commissioning for LEED course allowed me to really personalize the learning,” Brownell says. “I have made contacts, listened to leaders in the industry, found more to learn, and been inspired. The opportunity to learn from and talk with teachers who have influenced the standards and technology in the HVAC field is amazing, and the interaction with students who are working in the industry has broadened my appreciation of the field.”
Broaden your technical expertise and add to your professional knowledge, whether you work in civil, construction, structural, mechanical, environmental, or electrical engineering.

Learn the latest developments and trends in photovoltaic devices, power conversion, wireless communications, networking, and technologies for emerging markets. Take an online program in integrated circuit design that offers optional Mandarin soundtracks to help maximize learning. Find out about HVAC for green buildings and smart grids, as well as state-of-the-art tools for facilities design and construction. Fulfill the academic requirements to become or maintain your status as a facilities manager or enroll in the courses you need to prepare for state licensing examinations.

Instructors who are engineers, architects, lawyers, building contractors, and other experts ensure your education is professionally relevant and academically strong. With UC Berkeley Extension, you are prepared for the next step in your engineering career.

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Engineering, Construction, and Facilities Management

Free Information Sessions
Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Certificate Programs in Construction Management and HVAC
EDP 326512
Wednesday, May 25, 5:30–7 pm
Berkeley: Golden Bear Center

Engineering

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/engineering

Civil/Construction Engineering and Management
Free Information Session:
Certificate Programs in Construction Management and HVAC
Learn how these professional certificates can help you achieve your career goals. For more information about the Certificate Program in Construction Management, see p. 127 or visit extension.berkeley.edu/cert/const.html. For more information about the Certificate Program in HVAC, see p. 131 or visit extension.berkeley.edu/cert/hvac.html.

EDP 326512
1 meeting
Wednesday, 5:30–7 pm
May 25
Berkeley: Golden Bear Center • FREE

Management in the Construction Industry
X464 • 2 semester units in Civil and Environmental Engineering
A requirement in the Certificate Program in Construction Management
Managing a small-, medium-, or large-scale construction project is a complex process from beginning to end. An error can lead to cost overruns and costly delays, but good management can bring projects in on time and in line with the cost estimates. This course provides a practical, in-depth introduction to construction management and preconstruction services. Multimedia presentations by industry experts introduce you to management techniques common in the industry. Both individually and with a group, you cover preparing a request for proposal (RFP), including an estimate with the accompanying qualifications and assumptions; conducting constructibility reviews and value engineering analyses; creating construction schedules; and developing staffing and general conditions costs for projects from the preconstruction stage through construction completion. Enrollment is limited.
EDP 326371
Henry Tooryani, M.S.
10 meetings
Thursdays, 6:30–9:30 pm
March 21–May 23
Berkeley Campus: 175 Barrows Hall • $710

Managing Safety and Health in Construction Projects
X452 • 2 semester units in Civil and Environmental Engineering
A requirement in the Certificate Program in Construction Management
Safety and risk management on a construction project not only protect workers but also dramatically affect the bottom line for the companies involved. Production, quality, cost control, and safety are equally important to the efficiency and profitability of any construction firm. Learn the basic principles of health management as it relates to the safety and environmental issues faced by a construction firm. Effective safety management and the deployment of safety and loss control are major focuses. Enrollment is limited.
EDP 326447
Peter Furst, M.B.A., CSP, REA
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
Berkeley Campus: 175 Barrows Hall • $710

Construction Enterprise Risk Management
X400.8 • 2 semester units in Civil and Environmental Engineering
An elective in the Certificate Program in Construction Management
Learn to optimize construction business profitability and reduce systematic risks by applying enterprise risk management (ERM) methodology, a business management system tailored to the construction industry. You examine leading-edge concepts of corporate risk management—uniquely focused on midsize to large construction enterprises. Using the ERM framework, you learn proven strategies to identify, analyze, and communicate risks to shareholders and corporate stakeholders. As an outcome, you develop the necessary expertise to manage risk more effectively and underwrite risk more accurately using proven risk-analysis techniques.
EDP 326454
David Druml, M.S.
10 meetings
Mondays, 6:30–9:30 pm
February 28–May 2
Berkeley Campus: 166 Barrows Hall • $525

Call for Instructors and Course Proposals
UC Berkeley Extension invites highly qualified instructors to submit course proposals and résumés or letters of interest to jobs@unex.berkeley.edu. Information about current course offerings is available at extension.berkeley.edu.
UC Berkeley Extension is committed to diversity in its staff, faculty, and student body and invites all qualified people to apply. AA/EEO
Certificate Program in Construction Management

The Certificate Program in Construction Management provides thorough, up-to-date preparation for effectiveness and leadership in the field of construction management, which includes light (residential and small office buildings) and heavy (large office buildings and facilities, infrastructures) projects. As a construction manager, you are in charge of the overall planning and control of a project, which demands a command of many skills. This professional certificate offers knowledge of the regulatory, insurance, management, safety, estimating, and environmental aspects of the construction management field.

Curriculum Requirements
The curriculum consists of 5 required courses and 60 hours of electives (usually 2 courses) for a total of 14 semester units (210 hours of instruction).

Required Courses
- Management in the Construction Industry X464 (offered spring and fall terms)
- Fundamentals of Construction Law X440 (offered summer term)
- Managing Safety and Health in Construction Projects X452 (offered spring and fall terms)
- Construction Project Scheduling and Control X463 (offered spring term)
- Preconstruction Estimating: From the Design Development Stage to the Final Bid Process X451 (offered summer term)

Electives Available This Term
- Construction Enterprise Risk Management X400.8
- Construction Materials and Methods X486
- Implementing LEED Strategies X496
- Introduction to Photovoltaic Systems X440
- LEED for Homes: Integrated Project Planning X498.1
- Project Management X470
- Project Risk Management X440.4
- Project Procurement Management X474.3

Learn More and View the Brochure
extension.berkeley.edu/cert/const.html
(510) 642-4151
course@unex.berkeley.edu
Enroll using EDP 302448
Construction Materials and Methods
EDP 326280
Peter Furst, M.B.A., CSP, REA
9 meetings
Mondays, 6–9:30 pm
January 3–March 14 (no meeting January 17 and February 21)
Berkeley: Golden Bear Center • $695

Construction Project Scheduling and Control
X463 • 2 semester units in Civil and Environmental Engineering
A requirement in the Certificate Program in Construction Management
Understanding and applying scheduling and control to construction projects is essential to successful construction management. Project scheduling emphasizes network-based schedules, such as critical path management (CPM), network calculations, critical paths, resource scheduling, probabilistic scheduling, and computer applications. Project control emphasizes goals, the flow of information, time and cost control, and change management.
EDP 326363
John F. Sims, B.S., P.E.
10 meetings
Tuesdays, 6:30–9:30 pm
March 29–May 31
Berkeley Campus: 166 Barrows Hall • $725

Sustainable Construction Management and Field Practices
X490 • 2 semester units in Civil and Environmental Engineering
An elective in the Certificate Program in Construction Management
Today, developers, owners, architects, engineers, and construction managers are expected to know what green buildings are and how to approach their design, construction, and operation. Learn the how-tos of green management and operations of a construction site from preconstruction to LEED/green certification. Review management methods in preconstruction, cost estimation of green features, sustainability vocabulary in subcontracts, improved workers’ safety and health field practices, LEED/green-building requirements, development and execution of proper commissioning, and preparation of close-out documentation for sustainable operations and LEED/Green certifications.
EDP 336156
Adhamina Rodriguez, M.S.
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
San Francisco: Art and Design Center • $715

Introduction to SolidWorks
X412 • 1 semester unit in Mechanical Engineering
Get a hands-on introduction to mastering SolidWorks 3-D CAD software. Through project-based learning, you gain an understanding of building parts, manufacturing drawings, assemblies, assembly drawings, and bills of material. Learn best practices, essential parametric sketching techniques, and time-saving shortcuts for making fully 3-D parts.
Prerequisite: SolidWorks software preloaded on a laptop
EDP 316240
Kevin Nouri, B.S.
5 meetings
Thursdays, 6:30–9:30 pm
April 21–May 19
Berkeley: Golden Bear Center • $395

Lean Manufacturing
NEW THIS TERM
Lean Manufacturing: Introduction
X420 • 1 semester unit in Industrial Engineering
A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration
Learn what Lean manufacturing is, where it comes from, its logic, and the range of applications in which it has been successful. Inferring principles from industry practice is the first step to implementing Lean, with its unique business and technical characteristics, in your industry. Survey all dimensions of Lean and its mutual relationships, and then apply those concepts during a daylong simulation exercise.
EDP 326744
Michel Baudin, M.S.
2 meetings
Friday and Saturday, 8:30 am–5 pm
January 28 and 29
Belmont: Belmont Center • $425

NEW THIS TERM
Lean Manufacturing: Assembly
X421 • 1 semester unit in Industrial Engineering
A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration
Learn the fundamentals of the Lean approach to assembling products, saving costs, reducing delivery times, and improving competitive position. Almost every manufacturing process ends with assembly, and effective assembly is key to realizing the value added in all upstream operations. Study Lean techniques and tools that remedy dysfunctional practices affecting your profits and long-term business viability.
EDP 326751
Michel Baudin, M.S.
2 meetings
Friday and Saturday, 8:30 am–5 pm
February 11 and 12
Belmont: Belmont Center • $425

Lean Manufacturing concentration

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
NEW THIS TERM

Lean Manufacturing: Working with Machines/Jidoka
X422 • 1 semester unit in Industrial Engineering
A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration

Learn Jidoka, the Lean approach to operations involving human-machine interactions. Performance differences that can be observed between factories can be related to the expertise with which organizations and people use the machines. Gain an understanding of how humans interface with individual machines, and then progress to studying the linkage of machines into cells, the management of monuments and common services, and production control. Learn strategies and tools to make the technical and managerial decisions that turn working with machines into lasting business success.

EDP 326777
Michel Baudin, M.S.
2 meetings
Thursday and Friday, 8:30 am–5 pm
March 3 and 4
Belmont: Belmont Center • $425

NEW THIS TERM

Lean Manufacturing: Logistics
X423 • 1 semester unit in Industrial Engineering
A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration

Focused on the Lean approach, this course covers physical distribution, information flow, and customer-supplier relations. Examine a variety of products and processes—including “milk runs,” warehouse designs, returnable containers, and consolidation centers—to see how you can streamline and improve production. Using a combination of visual management and IT tools, discover different types of pull signals; their ranges of applicability; and the integration of pull systems with production planning, forecasting, and scheduling. Explore proven techniques for setting up and sustaining collaborative supplier-customer relationships and supplier support systems.

EDP 326785
Michel Baudin, M.S.
2 meetings
Thursday and Friday, 8:30 am–5 pm
March 17 and 18
Belmont: Belmont Center • $425

NEW THIS TERM

Lean Manufacturing: Quality
X424 • 1 semester unit in Industrial Engineering
A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration

Learn how Lean organizations achieve advantage by integrating statistical methods, cellular manufacturing, pull systems, mistake-proofing, JKJ (Jikoutai Kanka Ketsu), and other tools. Study process-management techniques to get the quality levels your customers demand. Start by understanding the basics of Lean manufacturing strategy, and then learn specifics such as ISO-900x, routine QA, problem solving, and emergency response.

EDP 326769
Michel Baudin, M.S.
2 meetings
Thursday and Friday, 8:30 am–5 pm
March 31 and April 1
Belmont: Belmont Center • $425

NEW THIS TERM

Lean Manufacturing: Setting Up New Production Lines
X425 • 1 semester unit in Industrial Engineering
A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration

Learn to evaluate new plants and production lines and manage their implementation thoroughly and effectively. Study strategies in how to avoid common pitfalls, including steering committees that have no consensus on market demand, design teams instructed to “fit everything within available space,” and equipment ordered before processes can be developed.

EDP 326793
Michel Baudin, M.S.
2 meetings
Thursday and Friday, 8:30 am–5 pm
April 14 and 15
Belmont: Belmont Center • $425

NEW THIS TERM

Professional Program in Manufacturing Management and Innovation

If you are a manufacturing manager or engineer, the Professional Program in Manufacturing Management and Innovation educates you on the technical and managerial content of Lean practices—the manufacturing principle of eliminating waste while improving efficiency—as well as business processes and applicable management strategy. With this knowledge, you can simultaneously improve quality, productivity, delivery, safety, and morale, while ensuring sustainable competitiveness. This program bridges the gap between the theoretical knowledge of Lean and manufacturing management and the realization of its benefits. You can immediately implement what you learn in class to directly improve the overall performance of your organization.

Curriculum Requirements

The curriculum consists of a varied number of core concentration courses and electives for a total of 8 semester units (120 hours of instruction). You may choose from three different concentrations:

1. The Lean Manufacturing concentration requires at least 5 semester units (75 hours of instruction) from the Lean Manufacturing core course list* and electives Lean Practices X498.7 and Managing with Lean and Kanban.

2. The Competitive Innovation concentration requires at least 5 semester units (75 hours of instruction) from the Competitive Innovation core course lists*.

3. Completing the program without a specific designation requires at least 6 semester units (90 hours of instruction) from the Lean Manufacturing and Competitive Innovation core course lists.*

Required Courses and Electives

*To learn more about available courses and the various concentrations, please visit extension.berkeley.edu/spos/innovation.html.

Learn More
extension.berkeley.edu/spos/innovation.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 312132
**NEW THIS TERM**

**Lean Manufacturing: Information Systems**

X426  •  1 semester unit in Industrial Engineering

A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration

Learn to apply information technology (IT) in support of Lean manufacturing and lead manufacturing operations using more than 5s visual management to engage information from systems used for planning, execution, and monitoring. Topics include how to refine plant information flows, map interrelated processes and decisions, clean data for analysis, select and manage inexpensive software tools, and work with IT staff to support Lean manufacturing.

**EDP 326801**

Michel Baudin, M.S.

2 meetings

Thursday and Friday, 8:30 am–5 pm

April 28 and 29

Belmont: Belmont Center • $425

**NEW THIS TERM**

**Lean Manufacturing: Management**

X427  •  1 semester unit in Industrial Engineering

A requirement in the Professional Program in Manufacturing Management and Innovation, Lean Manufacturing concentration

Learn how to successfully implement lean manufacturing and ensure durable benefits across a variety of industries. Learn program management and project tools that are specific to Lean manufacturing and conducive to success. Understand how to set up the production organization and its supporting departments to sustain Lean. Discover ways to get new workers up to speed on Lean, including continuous improvement and problem solving.

**EDP 326819**

Michel Baudin, M.S.

2 meetings

Friday and Saturday, 8:30 am–5 pm

May 13 and 14

Belmont: Belmont Center • $425

**HVAC System Load Calculations and Psychrometry**

X469  •  2 semester units in Mechanical Engineering

A requirement in the Certificate Program in HVAC

Understand the thermodynamic principles of air-vapor mixtures; learn practical applications and use of psychrometric tables and charts; examine psychrometric processes of cooling, heating, humidification, dehumidification, and air-stream mixture; and study effective measurements tools and methods. Learn how to calculate HVAC system load and apply the principles of psychrometric processes to the design of optimal air-conditioning and heating systems and energy management. You also study best practices in system design strategies for LEED from real-world case studies.

**EDP 336420**

Instructor to be announced

10 meetings

Mondays, 6:30–9:30 pm

March 21–May 23

Belmont: Belmont Center • $675

**HVAC Control and Energy Management Systems**

X473  •  2 semester units in Mechanical Engineering

30 GBCI CE Hours

A requirement in the Certificate Program in HVAC

This course provides the practicing engineer, designer, and building operation engineer with a working knowledge of the principles involved in the selection and design of temperature controls for HVAC systems. Topics include controls theory and fundamentals; pneumatic, electric, electronic, and computer-based hardware; control application for zones; air handlers; and chilled-water and hot-water systems. On completing the course, you should be able to specify and design control systems for normal applications. **Enrollment is limited.**

**EDP 326405**

Steve Taylor, M.S., P.E., and Mark Hydenman, M.E., P.E.

10 meetings

Wednesdays, 6:30–9:30 pm

March 23–May 25

San Francisco: Downtown Center • $695

**HVAC Ductwork and Piping Systems**

X470  •  2 semester units in Mechanical Engineering

A requirement in the Certificate Program in HVAC

Learn the engineering fundamentals and practical considerations for the design of components and layout of HVAC systems and equipment. This practical course outlines the design process for all major HVAC components commonly in use. Lectures cover the selection and specification of components such as fans, coils, filters, pumps, chillers, cooling towers, boilers, water heaters, terminal devices, and air outlets. Study the design of air and water distribution systems with consideration for first cost, energy costs, and other practical matters such as space and maintenance. Energy conservation measures are highlighted throughout the course and presented with consideration for energy codes, utility rebate programs, and economic evaluation. The emphasis is on commercial applications in the greater Bay Area. **Enrollment is limited.**

**EDP 326413**

Steve Taylor, M.S., P.E., and Alan Daly, M.S., P.E.

10 meetings

Wednesdays, 6:30–9:30 pm

January 5–March 9

San Francisco: Downtown Center • $695

**HVAC Mechanical Design Codes**

X415  •  1 semester unit in Mechanical Engineering

Learn the California mechanical design codes and related building, plumbing, electrical and fire codes that affect HVAC designs (excl. CA Energy Code). Understand HVAC related codes, and acquire the skills to obtain design approvals from relevant government agencies. Examine the concepts of protecting occupants and buildings from hazards associated with mechanical equipment such as boilers, chillers, and ventilation exhausts and understand the importance of protecting exit routes. Examine practical design examples and understand how to apply relevant codes to meet mechanical and electrical code requirements and Cal/OSHA.

**EDP 336560**

Richard Paillon, B.S.

5 meetings

Tuesdays, 6:30–9:30 pm

May 10–June 7

San Francisco: Downtown Center • $445
Certificate Program in HVAC

The field of heating, ventilation, and air conditioning—HVAC—is the science and practice of controlling indoor climate to provide healthy and comfortable interior conditions for occupants in a well-designed, energy-efficient, and low-emissions manner. The Certificate Program in HVAC provides you with a coherent approach to acquiring in-depth technical understanding of the principles and applications you need to design new HVAC systems and retrofit existing systems to meet energy conservation standards.

Curriculum Requirements
This curriculum consists of 4 required courses and 90 hours of electives (usually 3 courses) for a total of 14 semester units (210 hours of instruction).

Required Courses
- HVAC System Load Calculations and Psychrometry X469 (offered spring term)
- HVAC Ductwork and Piping Systems X470 (offered spring term)
- HVAC System Design Considerations X472 (offered fall term)
- HVAC Control and Energy Management Systems X473 (offered spring term)

Electives Available This Term
- Implementing LEED Strategies X496
- Facilities Management: Systems and Technology X412.3

Learn More and View the Brochure
extension.berkeley.edu/cert/hvac.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302117
**Indoor Air Quality, HVAC, and Green Building**

X410 • 2 semester units in Mechanical Engineering

An elective in the Certificate Program in HVAC

Designed for individuals interested in indoor air quality who design and operate buildings, this course teaches you about common indoor air pollutants and their sources; how to investigate, test, and resolve indoor air quality complaints; and the role of ventilation systems. Examine indoor air quality in the LEED process and learn how and why to select materials and furnishings with low or no emissions that also do not negatively impact the indoor environment. Study why and how to incorporate low emission materials in building design, find out how indoor air quality testing programs support LEED certifications, and examine options to maximize the LEED certification process from the indoor air perspective. Learn step-by-step investigation techniques, air sampling and analysis procedures, and how to interpret the results of investigative efforts. Investigate numerous indoor air pollutants, including volatile chemicals, mold, asbestos, lead paint, and Legionella bacteria.

**EDP 336172**

Jeff Hicks, M.P.H., CIH; and Pamela Rey, P.E.

10 meetings

Mondays, 6:30–9:30 pm

January 3–March 21 (no meeting January 17 and February 21)

San Francisco: Downtown Center • $529

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**Facilities Management**

**COURSE INFORMATION**

(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/engineering

**Introduction to Facilities Management**

X420 • 2 semester units in Architecture

A requirement in the Professional Sequence in Facilities Management

The decision-making responsibilities of facilities management professionals and their staff cover a wide range of business, management, and technical areas. The field demands knowledge and skills in finance, planning, project design and implementation, administration, operations and maintenance, and human resource development. Get an overview of facilities management in this course. Develop an understanding of the knowledge and skills needed, the decision-making processes, and the function of a facilities manager within the total organization.

**EDP 316042**


4 meetings

Saturdays, 8:30 am–5 pm

January 29–February 26 (no meeting February 19)

Belmont: Belmont Center • $575

**Facilities Management: Operations and Maintenance**

X420.1 • 2 semester units in Business Administration

A requirement in the Professional Sequence in Facilities Management

Facilities managers must understand how a facility and its equipment operate and are serviced and maintained to serve its occupants. This course provides an overview of the skills and methods facilities managers use in areas such as budgeting, staffing, alterations, and building-systems operations.

**Prerequisite:** Introduction to Facilities Management X420

**EDP 336305**

Steven Greenwood, M.B.A., CHM

5 meetings

Saturdays, 9 am–4 pm

February 26–March 26

Berkeley Campus: See Web for updates • $575
Facilities Construction and Project Management
X420.2 • 2 semester units in Architecture
A requirement in the Professional Sequence in Facilities Management
Examine the function of the project manager, and gain an understanding of the planning, scheduling, administration, and control of all aspects of facilities construction. This course is recommended for new and experienced project managers from both design and construction backgrounds.

EDP 316059
Donny Houston, M.A.
10 meetings
Wednesdays, 6:30–9:30 pm
March 23–May 25
San Francisco: Downtown Center • $695

Facilities Management: Systems and Technology
X412.3 • 2 semester units in Business Administration
An elective in the Certificate Program in HVAC
Focus on the role of a facilities management systems manager by understanding the impacts of technology and reviewing successful case studies. You review systems such as telecom and cable management; basic information technology (IT); uninterruptible power supply (UPS); computer-aided facilities management (CAFM); computer-assisted drawing or drafting (CAD); computerized maintenance management system (CMMS); energy management systems (EMS); heating, ventilation, and air conditioning (HVAC); geographic information systems (GIS); computer-integrated facilities management (CIFM); project management; asset management; and cost management.

EDP 336313
Steven Greenwood, M.B.A.
5 meetings
Saturdays, 9 am–4 pm
April 30–June 11 (no meeting May 14 and May 28)
San Francisco: Downtown Center • $545

Electrical Engineering

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/subject/ee.html

NEW THIS TERM
Introduction to RFID Enterprise Systems and Strategies
X426 • 1 semester unit in Electrical Engineering
Radio frequency identification (RFID) systems are ubiquitous throughout the world because of their operational cost savings, real-time speed, and accuracy. Get a technical overview of various RFID technologies, and then learn successful business and deployment strategies for achieving operational excellence with RFIDs. Study system integration, database connectivity, and RFID system management concepts. Learn to evaluate RFID proposals with a solid business-case point of view and firm technical understanding.

EDP 316166
Juvenal Fernandes, Ph.D.
5 meetings
Tuesdays, 7–10 pm
January 11–February 8
Belmont: Belmont Center • $395

NEW THIS TERM
Effective Electromagnetic Compliance Strategies
X427 • 1 semester unit in Electrical Engineering
Electromagnetic Compliance (EMC)—the ability of all types of equipment that emit intentional or unintentional signals at radio frequencies to operate in a manner that is mutually compatible—has become important in minimizing conducted and radiated emissions from electrical equipment. Learn to evaluate EMC proposals from a solid business-case point of view. Study issues such as layout and packaging, structural and ground connections, wire routing, and shielding techniques so that you can make informed procurement decisions.

EDP 316174
Juvenal Fernandes, Ph.D.
5 meetings
Tuesdays, 7–10 pm
February 15–March 15
Belmont: Belmont Center • $395

NEW THIS TERM
Introduction to Semiconductor Manufacturing for Nonengineers
X425 • 1 semester unit in Electrical Engineering
Get an introduction to the techniques and fabrication processes for manufacturing semiconductors in a course designed for professionals without engineering or scientific backgrounds, such as product managers, marketers, and financial analysts. Explore how a semiconductor manufacturing company produces devices on microchips and how the technologies to make devices evolve over time. Learn about the various steps in making semiconductor integrated circuits (ICs).

EDP 316257
Kevin Nouri, M.S.
2 meetings
Saturdays, 8:30 am – 5 pm
February 5 and February 12
Berkeley Campus: See Web for updates • $395

Fundamentals of Data Communications and Networking
X433 • 2 semester units in Electrical Engineering-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management
Get an introduction to data communications in this introductory course in networking technology. You gain a practical understanding of relevant terminology, concepts, and other information necessary to make you literate in data communications. By the end of the course, you are able to make intelligent decisions about the appropriate design, purchase, integration, and use of data communications equipment and systems.

EDP 877902
Ching-Cheng Lee, Ph.D.
Enroll anytime
Online • $715
Professional Series in Smart Grid Technology

As governments, businesses, and home owners increasingly scrutinize the transmission and distribution of energy, many see the cost-reducing, clean-air benefits of a network-enabled, or smart, power distribution grid as a substantial improvement. This entry-level program provides a solid foundation in smart grid technology (SGT), including a technical overview of networking, electrical engineering, and power transmission and distribution. In addition to a wide range of smart grid theory, you study deployment issues, vendors, demand shaping, and statutory and regulatory requirements— instruction that prepares you to seize new opportunities in the emerging field of networked power.

If you are a sustainability professional looking for increased technical knowledge or a technology worker interested in migrating to SGT, this program provides the knowledge you need. The program is also an excellent fit if you are an urban planner, home developer, real estate professional, or policy maker looking for new or advanced opportunities in public utilities, renewable energy, commercial construction, or electric transportation.

Curriculum Requirements
The curriculum consists of 4 required courses for a total of 4 semester units (60 hours of instruction). Choose any 4 from the list of 6 courses.

Required Courses

- Smart Grids: Introduction X423 (offered spring and summer terms)
- Smart Grids: Energy-Efficient Transmission X423.1 (offered spring and summer terms)
- Smart Grids: Command and Control X423.2 (offered spring and fall terms)
- Smart Grids: Metering and Home Area Networks X423.3 (offered spring and fall terms)
- Smart Grids: Internet of Things X423.4 (offered spring term)
- Smart Grids: Microgrids X423.5 (offered spring term)

Learn More and View the Brochure
extension.berkeley.edu/spos/smartgrid.html (510) 642-4151

Enroll using EDP 312067

Smart Grid Technology

Smart Grids: Introduction

X423 • 1 semester unit in Electrical Engineering

A requirement in the Professional Series in Smart Grid Technology

Learn about the new intelligent energy grid that supports the green energy initiatives of the 21st century. Study real-world value propositions, business perspectives, and solution scenarios from business economics and technical practicalities points of view. Discover the evolution of today’s power distribution grid and the potential benefits from dynamically applying intelligence for improved efficiencies. This course lays a solid technical foundation for business professionals and a contemporary overview for technical staff and is ideal for proposal staff, product developers, system managers, and urban planners.

EDP 316067
Michael Hsieh, Ph.D.
2 meetings
Saturdays, 8:30 am–5 pm
March 5 and March 12
Belmont: Belmont Center • $460

Smart Grids: Energy-Efficient Transmission

X423.1 • 1 semester unit in Electrical Engineering

A requirement in the Professional Series in Smart Grid Technology

From long-distance high-voltage transmission lines through neighborhood distribution to the smart meter in the residential dwelling, this survey course covers the technical, economic, and environmental issues of energy transmission. You learn about the challenges of high-power interconnections and review quality considerations. You then advance to the intricacies of outage management systems, reliability benefits of substation automation, economics of capital deferral, energy loss mitigation using DC transmission, interfacing with demand control systems, and infrastructure security. This course lays a solid technical foundation for proposal staff, product developers, system managers, urban planners, and business professionals, as well as a contemporary overview for technical staff.

EDP 316075
Michael Hsieh, Ph.D.
2 meetings
Saturdays, 8:30 am–5 pm
March 19 and March 26
Belmont: Belmont Center • $460

Smart Grids: Command and Control

X423.2 • 1 semester unit in Electrical Engineering

A requirement in the Professional Series in Smart Grid Technology

The futuristic AC smart grid is built upon the concept of computerized command and control over a parallel data network in order to improve efficiency and reliability of electrical power distribution. In this survey course, you first review the communication technology for distribution automation of AC energy and then advance into technology trade-off considerations. You build a foundation for understanding the control network from the generation site to the end appliance in a residential home, including networking theory, trade-offs of various radio technologies, protocols, and security issues.

EDP 316083
Michael Hsieh, Ph.D.
2 meetings
Saturdays, 8:30 am–5 pm
April 2 and April 9
Belmont: Belmont Center • $460

Smart Grids: Metering and Home Area Networks

X423.3 • 1 semester unit in Electrical Engineering

A requirement in the Professional Series in Smart Grid Technology

Today's utility industry is delivering greener power at impressive efficiencies by tapping into the smart grid business model using consumer portals, automatic sensors, home networking, and advanced metering infrastructure. Gain a solid technical foundation for understanding smart meters and home power networking, including OpenHAN system requirements, modern wireless sensor networks, home automation, and ZigBee Smart Energy. This course is ideal for proposal staff, product developers, system managers, urban planners, and business professionals and is a contemporary overview for technical staff.

EDP 316091
Michael Hsieh, Ph.D.
2 meetings
Saturdays, 8:30 am–5 pm
April 16 and April 23
Belmont: Belmont Center • $460

For more information or to register contact Extension at extension.berkeley.edu (510) 642-4151.
Integrated Circuit (IC) Design and Engineering

Semiconductor Devices for Integrated Circuit Design

X138 • 2 semester units in Electrical Engineering

A requirement in the Certificate Program in Integrated Circuit Design and Techniques

This course provides an in-depth, comprehensive understanding of semiconductor devices, enabling you to cope with the ever-increasing bandwidths of state-of-the-art designs. Study a broad range of topics in bipolar junction transistor (BJT) and metal oxide semiconductor (MOS) technologies, with an emphasis on delivering an inspiring perspective involving physical concepts, operation principles, second-order effects, and modeling and simulation. Individual research projects cover real-world issues in advanced complementary metal oxide semiconductor (CMOS) modeling in the 90 nm or 65 nm scale and future trends in the statistical IC design in nanoelectronics.

EDP 307827
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Advanced Analog Microelectronics

X139 • 2 semester units in Electrical Engineering

A requirement in the Certificate Program in Integrated Circuit Design and Techniques

Integrated analog filters, oscillators, and multivibrators are important building blocks in developing an analog module to implement many applications in signal processing or wireless communications. Topics include feedback, filters, oscillators, and multivibrators. The scope of the individual research projects includes switched-capacitor circuits, continuous-time filters, and voltage-controlled oscillators (VCOs) for phase-locked loop (PLL) applications. The instructor helps you choose a practical research topic that you can implement in real-world applications for frequency synthesizers or televisions.

EDP 307835
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Fundamentals of Analog Integrated Circuit Design Techniques

X140 • 2 semester units in Electrical Engineering

A requirement in the Certificate Program in Integrated Circuit Design and Techniques

Gain a competitive advantage by learning how to analyze, simulate, and design a complementary metal oxide semiconductor (CMOS) analog integrated circuit. This course is intended for working professionals who have no strong foundation in analog design but are interested in either upgrading their knowledge and skills or redirecting their career development in the semiconductor market. Topics cover basic concepts, practices, and design skills used for analog ICs. Lectures include basic current mirrors, high-performance current mirrors, single-stage CMOS amplifiers, differential amplifiers, output stages, and short-circuit protection circuitry.

EDP 307843
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Advanced Design Techniques for Analog Integrated Circuits

X141 • 2 semester units in Electrical Engineering

A requirement in the Certificate Program in Integrated Circuit Design and Techniques

Advances in signal processing, analog/digital conversion, and the continued scaling down of complementary metal oxide semiconductor (CMOS) nanotechnology have ushered in the era of analog IC design with multistandard challenges. Topics include stability of feedback, frequency compensation, multistage operational amplifiers (op-amps), and optimized CMOS op-amp designs. Prepare to work on a design project to meet a required product specification. The scope of the project covers design of an advanced CMOS op-amp and of high-performance CMOS comparators for flash analog-to-digital converter (ADC) applications.

EDP 307850
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

NEW THIS TERM

Smart Grids: Internet of Things

X423.4 • 1 semester unit in Electrical Engineering

A requirement in the Professional Series in Smart Grid Technology

The Internet of Things refers to current attempts to translate the success of the online network effect into that of smart objects. Taking smart energy grids as a model, you investigate topics such as wireless sensor network issues, the role of middleware, radio frequency identification (RFID) and sensor network technologies, and security and privacy issues.

Sec. 1 EDP 336669
Instructor to be announced
2 meetings
Saturdays, 8:30 am–5 pm
January 22 and January 29
Belmont: Belmont Center • $460

Sec. 2 EDP 316109
Michael Hsieh, Ph.D.
2 meetings
Saturdays, 8:30 am–5 pm
April 30 and May 7
Belmont: Belmont Center • $460

NEW THIS TERM

Smart Grids: Microgrids

X423.5 • 1 semester unit in Electrical Engineering

A requirement in the Professional Series in Smart Grid Technology

Microgrids—modern, small-scale versions of the centralized electricity system that generate, distribute, and regulate the flow of electricity to local consumers—can be an ideal way to intelligently integrate renewable resources, enable customer participation, add reliability, bring diversification of energy sources, reduce carbon emissions, and lower life-cycle costs. Microgrids are the local-level building blocks of the modern, smart power grid. Examine a variety of microgrid topics, including distributed generation, wind, photovoltaics, fuel cells, supervisory control and data acquisition (SCADA) systems, securing smart grids, matching community needs, smart meters, and devices.

Sec. 1 EDP 336777
Instructor to be announced
2 meetings
Saturdays, 8:30 am–5 pm
February 12 and February 26
Belmont: Belmont Center • $460

Sec. 2 EDP 316117
Michael Hsieh, Ph.D.
2 meetings
Saturdays, 8:30 am–5 pm
May 14 and May 21
Belmont: Belmont Center • $460
Introduction to Microelectronic Theory and Applications
X30 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Taking an application-oriented approach, get an overview of analog and digital integrated circuits, starting with the most frequently used and applicable semiconductor device and circuit theories, and channel them into more complex circuit schematics and application modules, such as amplifiers, operational amplifiers with bipolar and complementary metal oxide semiconductor (CMOS) technologies, digital inverters, precision rectifiers, voltage regulators, and biasing techniques of amplifiers.
EDP 307744
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Fundamentals of Analog Microelectronic Techniques
X33 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Develop intuitive skills for analyzing microelectronic circuits without doing lots of intricate mathematics. Although some courses use the classical approach requiring a tedious derivation that becomes more cumbersome with a complex circuit, this approach offers an alternative, focusing on the analysis-by-inspection method. Topics covered include low-frequency bipolar junction transistor (BJT) and metal oxide semiconductor (MOS) amplifiers, amplifier frequency response, analysis-by-inspection, Simulated Program with Integrated Circuit Emphasis (SPICE) simulation, and advanced case studies.
EDP 307769
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Fundamentals of Integrated Circuit Design
X31 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Learn the underlying concepts and industry-standard simulation tools for IC design, operational amplifier characteristics, and practical amplifier behaviors in the frequency domain. Designed for technical professionals, this course aids in understanding analog circuit essence and properties through analysis-by-inspection and SPICE simulation. Topics include basic operational amplifier (op-amp) circuits and applications, s-domain analysis, bandwidth and slew-rate limitations, and analyzing frequency limitations of amplifiers — a pivotal foundation for advancing to more intricate IC design topics.
EDP 307751
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Introduction to Physics of Semiconductor Devices
X32 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Turn semiconductor industry terms, such as energy bandgaps and minority carriers, and transform them into powerful concepts to reveal the mysterious behavior of semiconductor devices. Topics include intrinsic and extrinsic semiconductors and metal-semiconductor contact. An individual research project covers subjects such as the ultimate limits of integrated electronics and an integrated strategy for confronting commoditization in the foundry industry. Apply what you learn to many applications, including complementary metal oxide semiconductor (CMOS), bipolar junction transistor (BJT), LED, lasers, and sensors.
EDP 307777
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Digital Integrated Circuit Design
X134 • 2 semester units in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Study digital operation principles and advances into more complex areas involving multiplexers and flash memory. Featuring in-depth illustration and broad discussions, this course distills concepts, SPICE verification, and design skills from CMOS, ECL, and BiCMOS logic to memory design. Work on a research project covering cutting-edge technologies, including ULP eSRAM, design for handheld or mobile applications, nonvolatile memory, NOR flash, PRAM, and high-speed eDRAM.
EDP 307875
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Effective SPICE Circuit Simulation Techniques
X405 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Gain hands-on experience using Simulated Program with Integrated Circuit Emphasis (SPICE) to simulate, verify, examine, and design microelectronic circuits. Illustrating techniques to fully leverage SPICE, this course offers in-depth coverage ranging from semiconductor devices to analog and digital ICs. A design project covers wide-swing constant-transconductance bias; advanced comparators; and sequential digital circuits, such as master-slave DFFs and C2MOS latches. This course features an interactive online learning experience and offers a higher level of proficiency.
EDP 307793
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Design Techniques of High-Performance Data Converters
X237 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Completely updated to reflect the extraordinary advances in data converters, this course sets the professional online learning standard in the IC design sphere. It is intended for practitioners who have experience in analog design and are interested in upgrading their skills in data converters. Topics include high-speed Nyquist-rate converters, oversampling, delta-sigma modulators, and design examples through Simulink and HSPICE. Project options include 0.8 GS/s ADC for 10 Gb/s Ethernet applications and delta-sigma ADC for TV, software radio, and high-quality digital audio applications.
EDP 307819
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Successful Circuit Design and Techniques
An elective in the Certificate Program in Integrated Circuit Design and Techniques

Thus course has restricted enrollment. Call (510) 642-4153 or (510) 642-4151 for more information.

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Online Certificate Program in Integrated Circuit Design and Techniques

The Online Certificate Program in Integrated Circuit Design and Techniques (ICDT) provides in-depth knowledge in a convenient online format designed for working professionals. Develop an understanding of key concepts in state-of-the-art design, including semiconductor characteristics; semiconductor device modeling; and analog, digital, and mixed-signal integrated circuit (IC) design. When you choose UC Berkeley Extension for your professional education, you benefit from an association with a university known worldwide for engineering excellence. An advisory board consisting of UC Berkeley College of Engineering faculty and industry leaders of major semiconductor companies in the Asia-Pacific region and the United States ensures that the program is both academically strong and professionally relevant.

The program’s innovative approach to learning includes English and Mandarin soundtracks that accompany English course slides. If you speak Mandarin but have some proficiency in English, you can successfully complete individual courses or the entire professional certificate.

**Curriculum Requirements**
The curriculum consists of 4 required courses and 1–2 electives for a total of 10 semester units (150 hours of instruction).

**Required Courses**
- Semiconductor Devices for Integrated Circuit Design X138 (offered online)
- Advanced Analog Microelectronics X139 (offered online)
- Fundamentals of Analog Integrated Circuit Design Techniques X140 (offered online)
- Advanced Design Techniques for Analog Integrated Circuits X141 (offered online)

**Electives Available This Term**
- Introduction to Microelectronic Theory and Applications X30
- Fundamentals of Integrated Circuit Design X31
- Introduction to Physics of Semiconductor Devices X32
- Fundamentals of Analog Microelectronic Techniques X33
- Digital Integrated Circuit Design X34
- Effective SPICE Circuit Simulation Techniques X405
- Fundamentals of Modern Data Converter Design X236
- Design Techniques of High-Performance Data Converters X237

**Learn More and View the Brochure**
extension.berkeley.edu/cert/icdesign.html
(510) 642-4151
course@unex.berkeley.edu
Enroll using EDP 302861
During the day, Jeff McLaughlin is the director of network architecture at a Silicon Valley tech company; during his evenings and weekends, McLaughlin studies, reads, and translates ancient Greek and Latin. With a bachelor’s degree in political science from Skidmore College in New York, McLaughlin continues to fuel his interest in the classics with courses from UC Berkeley Extension.

“Work occupies so much of our time, it’s great to have this opportunity to work on something else—and to do something personally enriching,” he says. “And in that respect, the UC Berkeley Extension program has been a godsend.”

After 10 courses with UC Berkeley Extension instructor Rali Christo, McLaughlin’s relationship with his classics instructor is inspiring. “She’s always willing to try new things, new teaching methodologies to help her students overcome the challenges in studying these ancient texts,” McLaughlin says. “Rali may be a teacher, but she is always learning. She has a natural curiosity, and it’s infectious.”
Broaden your intellectual perspective with UC Berkeley Extension, and change the way you view the world. An array of courses on history, literature, language, philosophy, culture, languages, cuisine, and personal development provides options to suit your interests. Explore the historical context of the classics. Gain a greater appreciation of diverse religions. Develop your communication skills. Or refine your palate with a program on fine wines.

You can also study a language to enrich your social, cultural, and professional experiences. Whether you want to brush up on your conversational French or need to know Mandarin for your next business trip to China, UC Berkeley Extension has the right course for you.

Extension courses offer the academic excellence you expect from a world-class university—and the opportunity to learn from both knowledgeable instructors and fellow students who share your passion for ideas.
**Humanities, Languages, and Personal Development**

**COURSE INFORMATION**
(510) 643-1110
humanit@unex.berkeley.edu
extension.berkeley.edu/subject/hum.html

**ONLINE COURSE INFORMATION**
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

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**Literature, History, and Culture**

**Virgil's The Aeneid**
Expand your knowledge of classical epic literature with a thorough reading of the greatest Roman epic, *The Aeneid*, and its historical context. You pay special attention to places where Virgil has taken inspiration from Homer and added his own twist to the matter. This theme of inversion recurs throughout *The Aeneid* and is a regular topic of discussion. Prepare to discuss whether Virgil was apologist or a critic of the Augustan regime and why his epic became the Roman national book. The class uses Robert Fagles' translation.

**EDP 026245**
Gaus Stern, Ph.D.
6 meetings
Tuesday, 6:30-9:30 pm
April 5–May 10
Berkeley Campus: 136 Barrows Hall • $145

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**The 18th Dynasty of Egypt**

Queen Hatshepsut took the titles of a king, and Tutankhamun’s burial astonished modern archaeologists. But these well-known figures were not the only rulers of ancient Egypt. Great warrior and builder Thutmose III, Amenhotep the Magnificent, and Akhenaten the Heretic each had their reign. Gain an understanding of the art, architecture, history, and literature of the 18th Dynasty. Examine primary sources such as military annals, the *Book of the Dead*, building dedications, private letters, and autobiographies. Explore in detail the monuments of Thebes and museum collections.

**EDP 026575**
Teresa Moore, Ph.D.
10 meetings
Saturday, 10 am–1 pm
January 29–April 2
(no meeting February 19, March 26, and April 2 and 16)
Berkeley Campus: See Web for updates • $245

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**Discovering the Middle East**

Conflict and crisis have shaped Americans’ views of the Middle East, yet how much do Americans really know about this region that figures so largely in our national life? Go beyond the media to engage with the region in depth: Examine the roots and tenets of Islam; study the ethnic, linguistic, religious, geographic, and political divisions of the modern Middle East; and survey the region’s fascinating history and culture in the hopes of demystifying the Middle East and its peoples.

**EDP 026567**
Douglas Brookes, Ph.D.
10 meetings
Thursday, 6:30–9:30 pm
January 27–March 31
Berkeley Campus: 2320 Tolman Hall • $245

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**The 18th Dynasty of Egypt**

Queen Hatshepsut took the titles of a king, and Tutankhamun’s burial astonished modern archaeologists. But these well-known figures were not the only rulers of ancient Egypt. Great warrior and builder Thutmose III, Amenhotep the Magnificent, and Akhenaten the Heretic each had their reign. Gain an understanding of the art, architecture, history, and literature of the 18th Dynasty. Examine primary sources such as military annals, the *Book of the Dead*, building dedications, private letters, and autobiographies. Explore in detail the monuments of Thebes and museum collections.

**EDP 026575**
Teresa Moore, Ph.D.
10 meetings
Saturday, 10 am–1 pm
January 29–April 2
(no meeting February 19, March 26, and April 2 and 16)
Berkeley Campus: See Web for updates • $245

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**The History of the English Language**

English, the official language of 71 nations, is spoken on every continent on the planet. Yet despite its ubiquity, the varieties of written and spoken English are astounding and can be perplexing to anyone who has encountered reggae lyrics, the writings of Chaucer, or lilting draws of the Old South. Examine the grammatical and semantic structure of English as it has evolved over the centuries, with attention to the nature and function of languages in general, illuminating the connections between language and other elements of culture. Topics include the origin and derivation of words; historical changes in sounds, forms, and meaning; literary and philosophical influences on the language; and contributions from other languages and cultures.

**Prerequisites:** Access to the Oxford English Dictionary (most libraries now have the compact edition) and the Oxford Dictionary of English Etymology is necessary. (You can subscribe to the OED online for as brief as a month at http://oed.com/subscribe.) Access to a library is recommended.

**EDP 897512**
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $770

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**Mystery Fiction**


Survey mystery fiction and its conventions, from the 19th-century origins of the genre to the classic Golden Age puzzle to the hard-boiled American female detective fiction of the 1990s. Understand the mystery novel’s status as a significant form of modern fiction, one that explores how human consciousness makes sense out of what might otherwise be viewed as random experience and meaningless violence.

**EDP 867606**
Mary Ann Koory, Ph.D., Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $715
American Fiction
X135A • 3 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Survey the major American novelists and short-story writers of the 19th and early 20th centuries, such as Twain, Poe, Crane, Melville, Wharton, Hawthorne, London, and others. In addition to learning about various literary movements such as romanticism, realism, and naturalism, you consider questions of aesthetics, morality, poverty, racism, gender, and power.
EDP 867622
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $715

The English Novel
X125 • 4 semester units in English
Survey the English novel by reading authors such as Forster, Trollope, Dickens, Brontë, Eliot, Wilde, Hardy, Stevenson, and others. Gain perspective on this literary form with emphasis on how moral, social, psychological, political, and philosophical problems were perceived during the Victorian and Edwardian periods.
EDP 897520
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $770

The Development of World Civilization: The Neolithic Age to the Renaissance
X19 • 3 semester units in History
Get a comparative study of world civilizations from prehistoric times to the European Renaissance, focusing on spiritual, political, intellectual, and artistic developments. Learn about ancient civilizations of Sumer, Egypt, Persia, and Greece; the beliefs and social organizations of India, China, and Japan; the rise and fall of imperial Rome and China; pre-Columbian America and early-African cultures; the Mongol conquest of Eurasia; medieval culture and tension between East and West; and the shift toward modernity in the Renaissance.
EDP 867747
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770

The Development of World Civilization: 1500 to the Present
X24 • 3 semester units in History
Engage in a comparative introduction to the major cultures of the world since 1500, focusing on social, political, intellectual, and artistic developments and responses to the dynamics of modernity. Learn about the civilizations of the western hemisphere, Africa, and the Middle East; the beliefs and social organization of India, China, and Japan; European political and intellectual revolutions; the world wars and the Cold War; anticolonialist movements; and today’s political, economic, and environmental configurations across many regions.
EDP 867754
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770

Introduction to the History of the United States: From Colonial Settlement to the Civil War
XBW7A • 4 semester units in History (formerly XB7A)
Important: Special academic policies apply to XBW courses. See p. 238.
Sharpen your understanding of the people, institutions, and ideologies that shaped the formation of the United States. Topics include exploration, settlement, colonial culture, the winning of independence, the Constitution, the new democracy, early-American technology, expansionism, sectional conflict, the Civil War, and Reconstruction. Gain practice in analytical methods that historians use to research facts and develop interpretations of events.
EDP 897835
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770

Introduction to the History of the United States: From the Civil War to the Present
XBW7B • 4 semester units in History (formerly XB7B)
Important: Special academic policies apply to XBW courses. See p. 238.
Survey U.S. history from the 1870s to the new millennium, and increase your knowledge of events, institutions, and prominent historic figures while developing skills in historical analysis and interpretation. Topics include the settlement of the West, industrial growth, progressivism, the emergence of a consumer culture, the causes and effects of the principal wars since the Civil War, affluence and scarcity since World War II, the cultural revolution of the 1960s, Watergate, and the resurgence of conservatism.
EDP 897843
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770

Is the Medium Still the Message?
Join two distinguished journalists as they participate in a lively discussion about the future of journalism and possible variants of that media–to–be. It’s almost common–place to hear reports about the “death of newspapers,” but is it really the death of newsprint? Can a newspaper exist without the paper, or does a change in medium necessarily change the message of journalists and journalism?
Find answers to these and other questions that have dominated media reporting.
Steve Fainaru, managing editor of the Bay Citizen, covered the war in Iraq for the Washington Post and won the Pulitzer Prize in International Reporting for that paper in 2008. Previously, he worked at the Boston Globe for 11 years, covering the Boston Red Sox, Wall Street, and Latin America. He served as that newspaper’s Latin America bureau chief. Fainaru, who is based in the San Francisco Bay Area, is the coauthor of The Duke of Havana: Baseball, Cuba, and the Search for the American Dream.
Neil Henry, dean of the UC Berkeley School of Journalism, worked for 16 years as a staff writer for the Washington Post and Newsweek magazine prior to joining the faculty in 1993. Henry has won awards from the Knight Foundation, the Associated Press, and the Robert F. Kennedy Memorial for his reporting and writing. He is the author of the 2002 racial memoir Pearl’s Secret. His second book, American Carnival (2007), examines the news industry’s adjustments to the digital age. Henry launched an award–winning digital news initiative funded by the Ford Foundation in which journalism students in the program’s core reporting classes produce local news content for neglected Bay Area communities.
EDP 026112
1 meeting
Tuesday, 7–9 pm
April 26
Berkeley: Golden Bear Center • FREE
The Culture of India: Roots of Tradition and Change
X11 • 2 semester units in South and Southeast Asian Studies
Explore some of the fundamental facets of the history and culture of modern India. By studying the political history, the religious traditions, and the varied geography of India, you gain a framework for understanding Indian civilization and relating this knowledge to the political and social challenges in modern Indian society.
EDP 897348
Alice W. Clark, Ph.D.
Enroll anytime
Online, proctored final exam • $595

History of Islam
X21 • 3 semester units in Near Eastern Studies
Recipient of the Distinguished Course Award from the University Continuing Education Association (UCEA)
This broad course explores the rich and complex history of Islam from its birth to the present day. Gain a greater appreciation of the cultural, geographical, and political diversity of the people who comprise the Islamic mosaic. You pay particular attention to the religious values of Islamic culture as exemplified by the life of the prophet Muhammad and as expressed in the Qur’an.
EDP 867788
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $715

Principles of Sociology: A Multicultural Perspective
X2 • 3 semester units in Sociology
Examine the basic topics, concepts, and principles of sociology. Consider the influence of social phenomena on human behavior, using comparative multicultural and cross-cultural approaches drawing on current, relevant examples. Topics include social ranking and mobility, crime and deviance, poverty, racial and ethnic minority status, gender discrimination, aging as a social process, the family, economic systems, political systems, religion, health care, education, and types and theories of social change.
EDP 867796
Gwynne Pacheco, Ed.D.
Enroll anytime
Online, proctored final exam • $760
Philosophy and Religion

NEW THIS TERM
Fundamentals of Augustinian Philosophy

Develop an understanding of just how much of the modern world is an “Augustinian world.” In addition to examining this enormously influential figure, Augustine, in the context of his time and now, you reflect and debate the topics he engaged in: the nature of friendship, family, education, society, toleration of differences, law and punishment, and war and peace. You also gain insight into how understanding Augustinian philosophy can help you create a happier and more engaged life.

EDP 026088
Fr. Thomas Whelan, OSA, M.A.
10 meetings
Tuesdays, 6:30–9:30 pm
January 25–March 29
Berkeley Campus: 136 Barrows Hall • $195

Comparative Philosophy

X11 • 3 semester units in Philosophy

Examine some fundamental philosophical questions from a variety of perspectives, including classical Western philosophy; Eastern and Western religious traditions; and specific cultural viewpoints, including feminist, Native American, and African thought. The course is intended not as a survey of these various philosophical systems, but as an introduction to basic themes in ethics, epistemology, and political and social philosophy. First, learn how these themes are defined in Western philosophy and then how they are approached in other systems of thought.

EDP 867523
Joseph Michael Fedel, M.A.
Enroll anytime
Online, proctored final exam • $715

History of Western Philosophy from the Pre-Socratic Period to the End of the Middle Ages

X20A • 3 semester units in Philosophy

Get an introduction to major philosophical concerns and concepts in Western thought, beginning with early texts in which philosophy first becomes distinguishable from myth and concluding with the philosophical debates of medieval Christianity. Explore philosophical questions relating to politics, metaphysics, natural science, logic, ethics, and aesthetics. The philosophers covered include Plato, Aristotle, Augustine, and Aquinas.

EDP 867531
Joseph Michael Fedel, M.A.
Enroll anytime
Online, proctored final exam • $715

Views of the Absolute in World Religions

X10 • 3 semester units in Religious Studies

Religion has been a fundamental part of the social, cultural, and political fabric of civilizations throughout history. Explore the important aspects of several important world religions, focusing on their definitions of the absolute (for example, God, Tao, the void) and how the individual relates to it. Diverse religions are covered, including Islam, Judaism, Christianity, Hinduism, Taoism, Buddhism, and Native American traditions.

EDP 867549
Joseph Michael Fedel, M.A.
Enroll anytime
Online, proctored final exam • $730

Free Public Event

30th Annual Panel on the Presidency

Obama at Midterm: A Report Card

Halfway through his term, how do we assess the presidency of Barack Obama? How did he deal with the economic and foreign-policy dilemmas he inherited? How did his election change the dynamics of both parties? And in the wake of the midterm elections, how should he seek to lead the country for the remaining two years of his term? Join a panel of experts as they put the Obama administration under the magnifying glass.

EDP 026328
1 meeting
Monday, 7:30–9:30 pm
March 14
Berkeley Campus: 155 Dwinelle Hall • FREE
Professional Sequence in Wine Studies

Learn about important wines of California and Europe, and gain a foundational understanding of the wine industry and wine history. Enhance your wine experience by exploring regional wines, varied winemaking techniques, and links between wine and cuisine. Cover unique interdisciplinary topics such as the relationship among philosophy, arts, and wine in particular cultures. All instructors are prominent educators in the local wine industry.

Curriculum Requirements
The curriculum consists of 4–5 required courses (depending on specific courses taken) for a total of 7.0 ceu (70 hours of instruction).

Required Courses
• Fundamentals of Wine Studies I: Wines of California and Europe (offered every term)
• Fundamentals of Wine Studies II: Sensory Evaluation of Wines and Their Components (offered spring and fall terms)

Electives Available This Term
• Global Wines: The Bigger Picture
• Wine and Dessert

Learn More
extension.berkeley.edu/spos/wine.html
(510) 643-1283
humanit@unex.berkeley.edu

Enroll using EDP 022434

Personal Development

COURSE INFORMATION
(510) 643-1110
humanit@unex.berkeley.edu
extension.berkeley.edu/humanities

Speaking and Presentation Skills
2.4 ceu
Learn how to define your audience, economize your preparation time, present yourself clearly and persuasively, handle questions and awkward situations, and use visual aids effectively. Working with your voice, face, and body language, you develop your own personal style to help build rapport with your audience. Practice in a supportive environment so that you approach a presentation with confidence and pleasure.

EDP 026211
Deborah Biron, B.A.
8 meetings
Tuesdays, 6–9 pm
February 1–March 22
San Francisco: Art and Design Center • $445

Using Your Voice as a Sales Tool
1.8 ceu
Cover the basics of good speech: vocal health, volume, pace, articulation, relaxation, and breath control. Learn the value of more advanced practices of emphasis, pausing, inflection, and the importance of silent messages. Learn proven, professional skills that add polish and professionalism to your vocal image.

EDP 026229
Deborah Biron, B.A.
6 meetings
Tuesdays, 6–9 pm
March 29–May 3
Belmont: Belmont Center • $395

How Relationships Work
Love is experienced differently by everyone, but five qualities stand out for most people to feel loved: attention, acceptance, appreciation, affection, and the freedom to live in accordance with our deepest personal needs. Examine the nature of intimate relationships, and learn skills to make relationships more effective. Explore the stages and aspects of love and relationships, and learn techniques to resolve conflict and build an enduring bond.

EDP 026583
David Richo, Ph.D.
1 meeting
Saturday, 9 am–4 pm
February 26
San Francisco: Art and Design Center • $175

Wine and Food Studies

COURSE INFORMATION
(510) 643-1110
humanit@unex.berkeley.edu
extension.berkeley.edu/humanities

Fundamentals of Wine Studies I: Wines of California and Europe
2.4 ceu
A requirement in the Professional Sequence in Wine Studies
Explore the characteristics of different wine types, the methods of production and aging, and the history of California’s wine industry. Learn tasting techniques and the proper care and serving of wine. Tastings of representative Californian, French, German, Italian, Spanish, and Portuguese wines follow the lectures, with emphasis on comparing Californian and European wines of similar types. The course fee includes all wines to be tasted in the course.

Note: Please bring six glasses to each session.
You must be at least 21 years old to enroll.

Sec. 1 EDP 026484
Christopher Greene, B.A.
8 meetings
Wednesdays, 6:30–9:30 pm
February 23–April 13
San Francisco: Art and Design Center • $475

Sec. 2 EDP 026252
David Lee, B.S.
8 meetings
Wednesdays, 6:30–9:30 pm
March 30–May 18
Belmont: Belmont Center • $475

Learn about important wines of California and Europe, and gain a foundational understanding of the wine industry and wine history. Enhance your wine experience by exploring regional wines, varied winemaking techniques, and links between wine and cuisine. Cover unique interdisciplinary topics such as the relationship among philosophy, arts, and wine in particular cultures. All instructors are prominent educators in the local wine industry.

Curriculum Requirements
The curriculum consists of 4–5 required courses (depending on specific courses taken) for a total of 7.0 ceu (70 hours of instruction).

Required Courses
• Fundamentals of Wine Studies I: Wines of California and Europe (offered every term)
• Fundamentals of Wine Studies II: Sensory Evaluation of Wines and Their Components (offered spring and fall terms)

Electives Available This Term
• Global Wines: The Bigger Picture
• Wine and Dessert

Learn More
extension.berkeley.edu/spos/wine.html
(510) 643-1283
humanit@unex.berkeley.edu

Enroll using EDP 022434

Speaking and Presentation Skills
2.4 ceu
Learn how to define your audience, economize your preparation time, present yourself clearly and persuasively, handle questions and awkward situations, and use visual aids effectively. Working with your voice, face, and body language, you develop your own personal style to help build rapport with your audience. Practice in a supportive environment so that you approach a presentation with confidence and pleasure.

EDP 026211
Deborah Biron, B.A.
8 meetings
Tuesdays, 6–9 pm
February 1–March 22
San Francisco: Art and Design Center • $445

Using Your Voice as a Sales Tool
1.8 ceu
Cover the basics of good speech: vocal health, volume, pace, articulation, relaxation, and breath control. Learn the value of more advanced practices of emphasis, pausing, inflection, and the importance of silent messages. Learn proven, professional skills that add polish and professionalism to your vocal image.

EDP 026229
Deborah Biron, B.A.
6 meetings
Tuesdays, 6–9 pm
March 29–May 3
Belmont: Belmont Center • $395

How Relationships Work
Love is experienced differently by everyone, but five qualities stand out for most people to feel loved: attention, acceptance, appreciation, affection, and the freedom to live in accordance with our deepest personal needs. Examine the nature of intimate relationships, and learn skills to make relationships more effective. Explore the stages and aspects of love and relationships, and learn techniques to resolve conflict and build an enduring bond.

EDP 026583
David Richo, Ph.D.
1 meeting
Saturday, 9 am–4 pm
February 26
San Francisco: Art and Design Center • $175

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Fundamentals of Wine Studies II: Sensory Evaluation of Wines and Their Components

1.5 ceu
A requirement in the Professional Sequence in Wine Studies

Extend your wine vocabulary, and discover how your individual sense of taste works. Through instructive tasting, you determine your threshold for certain tastes and learn how to identify various flavors in wine, how to find wine faults, how to differentiate between different wine-making methods, and how origin can affect flavor. You also engage in blind tastings as you further expand your understanding of the palate. The course fee includes all wines to be tasted in the course. Note: Please bring six glasses to each session. You must be at least 21 years old to enroll.

EDP 026260
Derrick Schneider, B.S.
6 meetings
Mondays, 7-9:30 pm
April 18–May 23
San Francisco: Art and Design Center • $425

Global Wines: The Bigger Picture

2.4 ceu
An elective in the Professional Sequence in Wine Studies

Explore boutique wines from the northern and southern hemispheres in this hands-on, nose-on experiential course. Study and compare domestic and international wines. Designed as an overview, this course facilitates training for wine novices while still challenging intermediate and advanced wine students. Note: Please bring six wine glasses to each session. You must be at least 21 years old to enroll.

EDP 026096
Don Beatty, B.A.
8 meetings
Mondays, 6–9 pm
March 28–May 16
Berkeley: Golden Bear Center • $475

NEW THIS TERM

Wine and Dessert

1.2 ceu
An elective in the Professional Sequence in Wine Studies

When it comes to wine and food pairings, dessert is often left out of the picture or included as an afterthought. You can change that with this unique course designed to introduce you to the plethora of dessert wines and suggested food pairings. Learn how to differentiate between different wine-making methods, and discover unique pairings of wines and desserts from countries around the world.

EDP 016634
Cynthia Sutko, M.B.A.
4 meetings
Mondays, 6:30–9:30 pm
April 4–April 25
Berkeley: Golden Bear Center • $375

Languages

COURSE INFORMATION

(510) 643-1110
lang@unex.berkeley.edu
extension.berkeley.edu/subject/languages.html

Modern Standard Arabic II

X51 • 3 semester units in Near Eastern Studies
A continuation of Modern Standard Arabic I X50, this course trains you to use more sophisticated grammatical structures, to expand your vocabulary, and to gain a basic knowledge of some aspects of Arabic art and culture. You improve your ability to read, write, and converse in modern standard Arabic, as well as introduce some spoken Arabic into your conversation for more natural communication with native Arabic speakers. In addition to the texts, other resources are available to improve your level of fluency. Enrollment is limited.
Prerequisite: Modern Standard Arabic I X50 or equivalent

EDP 026161
Roni Abusaad, Ph.D.
15 meetings
Saturdays, 2–5 pm
January 29–May 21
(no meeting February 19 and March 26)
San Francisco: Art and Design Center • $545

Arabic

Modern Standard Arabic I

X50 • 3 semester units in Near Eastern Studies
An introduction to Modern Standard Arabic. You learn to use basic grammatical structures, to expand your vocabulary, and to gain a basic knowledge of some aspects of Arabic art and culture. You improve your ability to read, write, and converse in modern standard Arabic. Enrollment is limited.
Prerequisite: None

EDP 026092
Khalil Shukri, Ph.D.
15 meetings
Mondays, 7-9:30 pm
January 25–May 1
San Francisco: Art and Design Center • $375

Chinese

Mandarin I

X22 • 2 semester units in East Asian Languages
Learn basic pronunciation, sentence patterns, and reading and writing characters in this introduction to Mandarin Chinese. By the end of the course, you should be able to pronounce the sounds of Mandarin with reasonable accuracy; introduce yourself and others; accept and decline simple invitations; and discuss nationalities, occupations, and family relationships. You should also be able to read and write 135 simplified characters and their corresponding pinyin romanization. Enrollment is limited.

EDP 026310
Virginia Mau, M.A.
15 meetings
Tuesdays, 6:30–9:30 pm
January 25–May 3
Berkeley Campus: 104 Barrows Hall • $545

Mandarin II

X23 • 2 semester units in East Asian Languages
This continuation of Mandarin I X22 is designed to increase general comprehension and facility with the language. By the end of the course, you should be able to place a simple restaurant order, tell time, talk about daily activities, discuss appointments and holidays, describe clothing and homes, make and respond to suggestions, and ask for and give opinions. You should also be able to read and write 300 simplified characters and their corresponding pinyin romanization. Enrollment is limited.

EDP 026146
Natasha Wild, M.A., Extension Honored Instructor
15 meetings
Saturdays, 1–4 pm
January 22–May 14
(no meeting February 19 and March 26)
Berkeley: Golden Bear Center • $545

Mandarin III

X24 • 2 semester units in East Asian Languages
Learn oral expression in idiomatic Mandarin. By the end of the course, you should be able to make telephone calls, ask for and give directions, talk about past events, discuss future plans, and use vocabulary and idiomatic phrases appropriate for some formal occasions. You should also be able to read and write 475 simplified characters and their corresponding pinyin romanization. Enrollment is limited.

EDP 026153
B. Paul Jia, M.A.
15 meetings
Tuesdays, 6–9 pm
January 11–April 19
San Francisco: Art and Design Center • $545

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
French

French I

X15  •  2 semester units in French
Get an introduction to the basic structures of French. By the end of the course, you should be able to greet others; ask and answer questions; and express basic feelings, intentions, and reactions. Enrollment is limited.

EDP 026062
Catherine Philippon
10 meetings
Tuesdays, 6:30–9:30 pm
February 1–April 5
Berkeley: Golden Bear Center • $425

French II

X16  •  2 semester units in French
Develop your conversational fluency in the present, past, and future tenses. Learn to share knowledge and express values and opinions. Enrollment is limited.

Prerequisite: French I X15 or the equivalent

EDP 026070
Marie-Claude Le Gall
10 meetings
Thursdays, 6:30–9:30 pm
February 3–April 7
San Francisco: Art and Design Center • $425

Parlons Français Sans Fautes

Expand your vocabulary and fluency in French. Exercises and discussion strengthen and refine your oral communication skills. You read articles on current events and review French pronunciation. By the end of the course, you gain greater confidence in your ability to conduct conversations with native speakers and to read original texts. The class is conducted entirely in French.

EDP 026591
Christian Philippon, M.A.
10 meetings
Tuesdays, 6:30–9:30 pm
February 1–April 5
San Francisco: Art and Design Center • $425

Japanese

Japanese I

X15  •  3 semester units in East Asian Languages
If you have little or no knowledge of Japanese, this course emphasizes the development of conversational skills. Learn to introduce yourself, make purchases, ask and give directions, make phone calls, and talk about plans and experiences. You gain a solid grammatical foundation and learn to read and write hiragana, one of two Japanese syllabic writing systems. Enrollment is limited.

EDP 026120
Sachiko Nicholson, M.A.
15 meetings
Tuesdays, 6–9 pm
February 15–May 24
Berkeley: Golden Bear Center • $545

Latin

Latin I

X20  •  3 semester units in Classics
This course provides an introduction to the grammar, syntax, and vocabulary of classical Latin. Instruction includes passages from Roman poets such as Catullus, Horace, Virgil, Ovid, and Martial, as well as from great prose writers and thinkers such as Cicero. Enrollment is limited.

EDP 026138
Rali Christo, Ph.D.
15 meetings
Saturdays, 2–5 pm
January 22–May 21 (no meeting February 19, March 26, and April 16)
Berkeley Campus: See Web for updates • $545

Spanish

Spanish for Beginners

X15  •  2 semester units in Scandinavian
This introductory course provides basic Swedish vocabulary and grammar. By the end of the course, you should be able to carry on a simple conversation; ask and answer questions; and express basic needs, feelings, and intentions. The course also discusses the culture and people of Sweden.

EDP 026609
Agneta Bendsjö-Schipper, M.A.
10 meetings
Wednesdays, 6:30–9:30 pm
February 2–April 6
Berkeley Campus: 2320 Tolman Hall • $425

Greek

Homerid Greek I

X15  •  3 semester units in Classics
Get a solid linguistic foundation for reading ancient Greek literature and an introduction to Homer’s epic language and poesis. Gain a heightened awareness of the structure and use of English and root meanings of words appropriated from Greek, especially in the languages of science, philosophy, and theology. Enrollment is limited.

EDP 026104
Rali Christo, Ph.D.
15 meetings
Saturdays, 10 am–1 pm
January 22–May 21 (no meeting February 19, March 26, and April 16)
Berkeley Campus: 2320 Tolman Hall • $525
HUMANITIES, LANGUAGES, AND PERSONAL DEVELOPMENT

English Courses for Nonnative Speakers

If you are a professional whose native language is not English and you want to improve your core skills in English, you can benefit from UC Berkeley Extension courses. Study with other professionals, and learn how to speak, write, and interact with more confidence. With strong academic backgrounds and extensive teaching experience, our instructors provide you with language skills that will be of immediate value to your career and life.

These courses are intended for intermediate to advanced English learners.

Pronunciation Improvement for Effective Communication

X404 • 2 semester units in Education

Designed to help nonnative speakers of English communicate more effectively by improving their pronunciation, this course shows how to improve intonation, rhythm, and stress patterns in order to speak more clearly. The instructor works closely with you to correct individual errors and gives strategies to help improve your accent. Become a better communicator of English through intensive classroom practice and structured activities. Be aware of your own pronunciation, and learn to monitor yourself for continued improvement.

EDP 206672
Ilze Duarte, Ph.D.
10 meetings
Saturdays, 9 am–12 pm
January 22–April 9
(no meeting on February 19 and March 26)
Berkeley Campus: See Web for updates • $500

Power Vocabulary for Professionals

X401.1 • 2 semester units in Education

Boost your potential and ability to communicate effectively in the global workplace. This course is designed for global professionals for whom English is a foreign language. Focus on understanding and using idiomatic language and new vocabulary in context, and improve your confidence and oral fluency in your workplace and daily life. Class discussions, required readings, and listening exercises introduce you to contemporary issues in U.S. society and business culture.

EDP 206490
Leesa Sopjes, M.A.
10 meetings
Saturdays, 9 am–12 pm
January 22–April 9
(no meeting February 19 and March 26)
Berkeley Campus: See Web for updates • $600

Academic Writing for ESL

X400.1 • 2 semester units in Education

Improve your accuracy in writing mechanics, all grammar areas, and effective writing style and organization essentials. This course is designed for intermediate to advanced international students and researchers who are proficient in English but need to improve their academic writing skills. Lectures and writing workshops assist you in writing summaries, abstracts, technical reports, and academic papers. Structured exercises and instructor feedback teach you to assess your own writing and that of your peers. Upon completion, you have a deeper understanding of the writing process and noticeable improvements in your writing.

EDP 206318
Benjamin Feinbaum, M.Ed.
10 meetings
Mondays, 6–9 pm
January 31–April 11
Berkeley Campus: 104 Barrows Hall • $500

Advanced Grammar Skills in ESL

X402 • 2 semester units in Education

Are problems with grammar holding you back? Designed for nonnative English speakers, this course helps perfect and polish your English grammar with the goal of increasing your effectiveness and confidence in the workplace. Review and practice advanced grammar points in the contexts of oral communication, reading, and writing.

EDP 206375
Steven West, Ph.D.
10 meetings
Tuesdays, 6:30–9:30 pm
February 15–April 19
Berkeley Campus: 155 Barrows Hall • $550

Oral Presentation Skills for Business

X401 • 2 semester units in Education

This course helps improve public speaking skills and overall clarity, builds techniques for making presentations more engaging, identifies pitfalls nonnative speakers face when presenting, and provides strategies for preparing and practicing for presentations. Become familiar with aspects of effective presentations, and create a practice PowerPoint presentation. In the final session, you make a brief, videotaped presentation and receive feedback from your peers and instructor to help you develop confidence when communicating in a global business setting.

EDP 206300
Benjamin Feinbaum, M.Ed.
10 meetings
Wednesdays, 6:30–9:30 pm
February 2–April 6
Berkeley Campus: 104 Barrows Hall • $500

Academic Success in the American University

X400.2 • 2 semester units in Education

Learn academic and cultural survival skills—including strategies for more effective study, expectations for collaborative group work, guidelines for academic honesty, and key attributes of American university culture—as they specifically affect international students. Work on developing critical academic and core ESL skills related to undergraduate and graduate student success in the United States. Focus on academic writing, presentation, and collaborative group skills.

EDP 206748
Sedique Popal, Ed.D., Extension Honored Instructor
10 meetings
Mondays, 6:30–9:30 pm
February 7–April 18 (no meeting February 21)
Berkeley Campus: 2301 Tolman Hall • $550

Conversational Skills for ESL Learners and Speakers

X405 • 2 semester units in Education

Increase your fluency, confidence, and comfort level when speaking English with both native and nonnative speakers. This course is specifically designed for individuals whose English proficiency is at an intermediate level. Through constant practice using dialogues and situational role playing, the instructor identifies strategies and specific conversational techniques to help individual students improve their spoken English.

Sec. 1 EDP 206789
Ilze Duarte, Ph.D.
10 meetings
Saturdays, 1–4 pm
January 22–April 9
(no meeting February 19 and March 26)
Berkeley Campus: See Web for updates • $500

Sec. 2 EDP 206730
Leesa Sopjes, M.A.
10 meetings
Thursdays, 6:30–9:30 pm
February 3–April 7
Berkeley Campus: 140 Barrows Hall • $500

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Michael C. Yang, a research associate at a biotech firm in the Bay Area, holds a bachelor’s degree in genetics from the University of California, Davis. Having completed UC Berkeley Extension’s Post-Baccalaureate Health Professions Program, Yang describes his experience as “absolutely wonderful.” “I don’t even know how to put it into words,” he says.

Thanks to the Health Professions Program, which prepares students to pursue advanced study in medicine and other health professions, Yang is now waiting for acceptance to pharmacy school. “Program director Dr. Patrick Brown was able to help me so much with applying to other schools and things like reading my personal essay and offering to conduct practice interviews,” Yang explains. “If I get an interview, you can bet I’ll be taking advantage of those practice interviews!”

With courses that meet the academic standards of the University of California, Berkeley, the Post-Baccalaureate Health Professions Program is an ideal solution for anyone looking to explore options in the medical field. “If you’re in a stage where you want to further your career, I think UC Berkeley Extension is a great place to do that,” Yang says.
There’s no better place than UC Berkeley Extension to enhance your career in the sciences. Stay competitive with training that reflects the latest thinking in various fields. Courses developed and taught by industry innovators and subject experts enable you to connect with medical professionals, business leaders, and biotechnology pioneers.

A full range of course offerings provides the prerequisites you need for professional or graduate study. Enhance your background in science to prepare for advanced programs in medicine, dentistry, veterinary medicine, nursing, pharmacy, or physical therapy. Meet the math and statistics requirements to enter the Haas School of Business at UC Berkeley or other M.B.A. programs. Courses in everything from biology, chemistry, and physics to analytic geometry, calculus, and statistics ensure you find the appropriate education.

For the specialized math and science knowledge you need to take your career to the next level, come to UC Berkeley Extension.

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Free Information Session: Post-Baccalaureate Health Professions Program

This specially designed program provides academic preparation in the sciences and advising to enhance your application for admission to medical, dental, or veterinary school or to advanced degree programs in the health professions. Discover how you can prepare for medical school and other advanced health career training programs with UC Berkeley Extension’s top-flight science courses. For details, see p. 151 or visit extension.berkeley.edu/spos/premed.html.

**Certificate Program in Clinical Research Conduct and Management**

EDP 406751
Saturday, January 22, 10–11 am
San Francisco: Downtown Center

EDP 406769
Saturday, May 7, 10–11 am
San Francisco: Downtown Center

**Free Information Session:**

**Post-Baccalaureate Health Professions Program**

EDP 416883
Wednesday, January 19, 6–7 pm
Berkeley: Golden Bear Center

EDP 416891
Saturday, January 22, 10 am–12 pm
Belmont: Belmont Center

EDP 416909
Thursday, February 17, 6–8 pm
San Francisco: Downtown Center

EDP 426197
Saturday, March 19, 10 am–12 pm
San Francisco: Downtown Center

EDP 416925
Saturday, May 7, 10 am–12 pm
Berkeley: Golden Bear Center

EDP 416917
Monday, May 16, 6:30–8 pm
Belmont: Belmont Center

**Professional Program in Clinical Research Conduct and Management**

EDP 406710
Saturday, January 29, 11:30 am–12:30 pm
San Francisco: Downtown Center

EDP 406728
Saturday, May 21, 11:30 am–12:30 pm
San Francisco: Downtown Center

**Professional Program in Biopharmaceutical Product and Process Development**

EDP 406611
Saturday, January 29, 1–2 pm
San Francisco: Downtown Center

EDP 406629
Saturday, May 21, 1–2 pm
San Francisco: Downtown Center

**Professional Program in Bioscience Manufacturing and Supply Chain**

EDP 406678
Saturday, January 22, 2:30–3:30 pm
San Francisco: Downtown Center

EDP 406686
Saturday, May 7, 2:30–3:30 pm
San Francisco: Downtown Center

**Professional Program in Project Management for Biopharmaceuticals**

EDP 406660
Saturday, January 22, 11:30 am–12:30 pm
San Francisco: Downtown Center

EDP 406652
Saturday, May 7, 11:30 am–12:30 pm
San Francisco: Downtown Center

**Professional Program in Quality and Compliance for Biotechnology**

EDP 406645
Saturday, January 22, 1–2 pm
San Francisco: Downtown Center

EDP 406637
Saturday, May 7, 1–2 pm
San Francisco: Downtown Center

**Professional Program in Biopharmaceutical Business**

EDP 406736
Saturday, January 29, 10–11 am
San Francisco: Downtown Center

EDP 406744
Saturday, May 21, 10–11 am
San Francisco: Downtown Center

**Free Information Session:**

**Professional Program in Clinical Research Conduct and Management**

EDP 406751
Saturday, January 22, 10–11 am
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EDP 406769
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**Professional Program in Biopharmaceutical Business**

EDP 406736
Saturday, January 29, 10–11 am
San Francisco: Downtown Center

EDP 406744
Saturday, May 21, 10–11 am
San Francisco: Downtown Center
**Health Careers Seminar I**  
0.3 ceu  
This course orients you to the Post-Baccalaureate Health Professions Program and assists you in planning your course of study. You learn skills that support your success in the program and clarify your understanding of and interest in specific health care careers.  
**Prerequisites:** You must be officially accepted into the Post-Baccalaureate Health Professions Program.  
**EDP 416503**  
Alexandra Tan, Ph.D.  
1 meeting  
Sunday, 10 am–1 pm  
January 9  
San Francisco: Art and Design Center • $295

**EDP 416511**  
Alexandra Tan, Ph.D.  
1 meeting  
Sunday, 10 am–1 pm  
January 30  
San Francisco: Art and Design Center • $295

**Health Careers Seminar II**  
1.0 ceu  
This second installment of a two-course required sequence prepares you for the comprehensive application process to health career professional programs. You further clarify your interest in health care careers, admission requirements, length of study, and workforce issues. You plan your approach for the written application form, learn to write personal statements, and practice interview questions. You also learn strategies to finance your health care education. Your classroom experience includes lectures, in-class interactive presentations, case studies, and opportunities for private and semiprivate meetings with instructors.  
**Prerequisites:** You must have successfully completed Health Careers Seminar I to be eligible for Health Careers Seminar II.  
**EDP 416529**  
Alexandra Tan, Ph.D., and Juhn Verano, M.S.  
5 meetings  
Sundays, 10 am–1 pm  
February 13–March 20  
(no meeting February 20)  
San Francisco: Art and Design Center • $545

**EDP 416537**  
Alexandra Tan, Ph.D., and Juhn Verano, M.S.  
5 meetings  
Sundays, 10 am–1 pm  
April 17–May 15  
San Francisco: Art and Design Center • $545

**Post-Baccalaureate Health Professions Program**

For the science education required for advanced study in medicine and other health professions, turn to UC Berkeley Extension. The convenience of evening and weekend study makes it possible to continue working while you’re enrolled. Courses meeting the academic standards of UC Berkeley and comprehensive advisement ensure that your education is of the highest quality. In-depth advising helps you tailor a course plan, identify the medical or health program that fits your needs, and prepare an application for further study that presents you at your best. With UC Berkeley Extension’s Post-Baccalaureate Health Professions Program, you’re ready to join others who have succeeded in gaining admission to a wide range of medical, dental, veterinary, nursing, pharmacy, physical therapy, and other health care programs.

**Curriculum Requirements**

The curriculum consists of 2 required courses and a varied number of electives (depending on specific courses needed) for a total of 24 semester units.

**Required Courses**

- Health Careers Seminar I  
  (offered every term)  
- Health Careers Seminar II  
  (offered every term)

**Electives**

Please see the website for a complete list of available electives.

**Learn More and View the Brochure**

extension.berkeley.edu/spos/premed.html  
(510) 643-6918  
science@unex.berkeley.edu

**Enroll using EDP 402305**

**ENROLL NOW**  
VISIT Extension.Berkeley.EDU/ENROLL  
CALL (510) 642-4111
Biology
t
COURSE INFORMATION
(510) 642-1061
science@unex.berkeley.edu
extension.berkeley.edu/sciences

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

General Biology I
X15A • 3 semester units in Molecular and Cell Biology

Gain an introduction to fundamental concepts in biology, including cell structure and function; prokaryotes; eukaryotes; metabolism; molecular and organismal genetics; classification; and animal development, form, and function. Designed for biology majors and premedical and pre-health students, this course is also appropriate for returning students interested in a refresher biology class and professionals in other disciplines considering a career change to the biological sciences. Develop laboratory skills such as instrumentation, data analysis, and observation. This course is associated with General Biology Laboratory I X15.1A. The lecture may be taken without the laboratory.

Prerequisite: General Biology I X15A must be completed with a C or better or taken concurrently.

Sec. 1 EDP 416214
Kelly Kruger, Ph.D.
15 meetings
Tuesdays, 6–10 pm
January 25–May 3
Berkeley: Golden Bear Center • $920

Sec. 2 EDP 416222
Janet Kalesnikoff, Ph.D.
15 meetings
Wednesdays, 6–10 pm
January 26–May 4
Belmont: Belmont Center • $920

Sec. 3 EDP 416230
Kelly Kruger, Ph.D.
15 meetings
Thursdays, 6–10 pm
January 27–May 5
Berkeley: Golden Bear Center • $920

General Biology Laboratory I
X15.1A • 2 semester units in Molecular and Cell Biology

Get an introduction to fundamental concepts in biology, including cell structure and function; metabolism; molecular and organismal genetics; classification; and animal development, form, and function. Designed for biology majors and premedical and pre-health students, this course is also appropriate for returning students interested in a refresher biology class and professionals in other disciplines considering a career change to the biological sciences. Develop laboratory skills such as instrumentation, data analysis, and observation. This course is associated with General Biology Laboratory I X15.1A. The lecture may be taken without the laboratory.

Note: There is an additional $200 fee if you withdraw within seven days of the first class meeting.

Prerequisite: General Biology I X15A must be completed with a C or better or taken concurrently.

Sec. 1 EDP 416271
Kelly Kruger, Ph.D.
15 meetings
Saturdays, 9 am–1 pm
January 22–May 14
Oakland: Merritt College, 12500 Campus Dr. • $920

Sec. 2 EDP 416289
Kelly Kruger, Ph.D.
15 meetings
Saturdays, 1–5 pm
January 22–May 14
Oakland: Merritt College, 12500 Campus Dr. • $920

Sec. 3 EDP 416297
Eric Freundt, Ph.D.
15 meetings
Tuesdays, 6–10 pm
January 25–May 10 (no meeting April 5)
Redwood City: Cañada College, Building 16, Room 212 • $920

General Biology I
X15B • 3 semester units in Integrative Biology

Learn fundamental concepts in biology, including prokaryotes; protists; fungi and plant development, form, and function; population genetics; ecology; conservation; the origin of life; evolution; and classification. Designed for biology majors and premedical and pre-health students, this course is also appropriate for returning students interested in a refresher biology class and professionals in other disciplines considering a career change to the biological sciences. This course is associated with General Biology Laboratory II X15.1B. The lecture may be taken without the laboratory.

High school chemistry is recommended.

Sec. 1 EDP 416255
Yvette Alva-Campbell, Ph.D.
15 meetings
Tuesdays, 6–10 pm
January 25–May 3
Belmont: Belmont Center • $920

Sec. 2 EDP 416248
Arja McCray, Ph.D.
15 meetings
Tuesdays, 6–10 pm
January 25–May 3
Berkeley: Golden Bear Center • $920

Sec. 3 EDP 416263
Arja McCray, Ph.D.
15 meetings
Thursdays, 6–10 pm
January 27–May 5
Berkeley: Golden Bear Center • $920
**General Biology Laboratory II**

X15.1B • 2 semester units in Integrative Biology

Learn fundamental concepts in biology, including prokaryotes; protists; fungi and plant development, form, and function; population genetics; ecology; conservation; the origin of life; evolution; and classification. Designed for biology majors and premedical and pre-health students, this course is also appropriate for returning students interested in a refresher biology class and professionals in other disciplines considering a career change to the biological sciences. Develop laboratory skills such as instrumentation, data analysis, and observation in this course, which is associated with General Biology II X15B. **Note:** There is an additional $200 fee if you withdraw within seven days of the first class meeting.

**Prerequisite:** General Biology II X15B must be completed with a C or better or taken concurrently.

**Sec. 1** EDP 416305

Arja McCray, Ph.D.

15 meetings

Saturdays, 9 am–1 pm

January 22–May 14

(no meeting February 19 and April 23)

Oakland: Merritt College,

12500 Campus Dr. • $920

**Sec. 2** EDP 416313

Arja McCray, Ph.D.

15 meetings

Saturdays, 1–5 pm

January 22–May 14

(no meeting February 19 and April 23)

Oakland: Merritt College,

12500 Campus Dr. • $920

**Sec. 3** EDP 416321

Krikor Andonian, Ph.D.

15 meetings

Wednesdays, 6–10 pm

January 26–May 11 (also Saturdays, February 12, March 12, and April 16, 1–5 pm; no meeting February 9, March 9, April 6, and April 13)

Redwood City: Cañada College,

Building 16, Room 212 • $920

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**Introductory Biology with Lab, Part A**

X19A • 5 semester units in Molecular and Cell Biology

How do cells convert nutrients into usable energy? What is the relationship between genes, chromosomes, and DNA? Learn the answers to these and other questions while building a solid foundation in the fundamental concepts of molecular and cell biology, including cell structure and function, metabolism, and genetics, as well as animal development, form, and function. Put theory into practice with “home wet lab” and virtual experiments, and explore the relation between biological issues and current topics in experimental research, biotechnology, and medicine.

Familiarity with basic chemistry is recommended but not required.

**EDP 897579**

Monica Ranes-Goldberg, Ph.D.

Enroll anytime

Online, proctored final exam • $830

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**Introductory Biology with Lab, Part B**

X19B • 5 semester units in Molecular and Cell Biology

What are the mechanisms of evolution? How do plants perform basic biological functions? How do organisms interact with each other and their environment? Discover the answers to these and other questions while gaining a solid foundation on macroscopic biological issues, including organismal diversity—with particular emphasis given to plants, evolution, evolutionary biology, and ecology. Learn about biological diversity and ecological principles, including the effects of human activity on the environment. Put principles into action through “home wet lab” and virtual experiments.

Familiarity with basic chemistry is recommended but not required.

**EDP 897587**

Susan Parkinson, Ph.D.

Enroll anytime

Online, proctored final exam • $830

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**General Human Anatomy**

X104 • 3 semester units in Integrative Biology

Examine the correlations between the structures and functions of the body’s various systems in this intensive introductory course. Explore the functional anatomy of the human body through both gross and microscopic examination. Topics include the cardiovascular, respiratory, gastrointestinal, nervous, and skeletal-muscular systems, with an introduction to biomechanical principles. Investigate disease pathologies affecting normal body function. The course is especially useful as an introduction to human anatomy for students interested in the medical profession.

**Prerequisite:** One year of college-level general biology for majors

**Sec. 1** EDP 416453

Asma Asyyed, M.D.

15 meetings

Saturdays, 9:30 am–12:30 pm

January 22–May 7 (no meeting February 19)

Berkeley: Golden Bear Center • $820

**Sec. 2** EDP 416461

James Smiley, B.A., D.C.

15 meetings

Mondays, 6:30–9:30 pm

January 24–May 9 (no meeting February 21)

Belmont: Belmont Center • $820

**Sec. 3** EDP 416479

Kathleen Azevedo, M.S.

15 meetings

Tuesdays, 6:30–9:30 pm

January 25–May 10 (no meeting March 22)

Berkeley Campus: 126 Barrows Hall • $820

**Sec. 4** EDP 426437

Asma Asyyed, M.D.

15 meetings

Tuesdays, 6:30–9:30 pm

January 25–May 3

Berkeley: Golden Bear Center • $820
Human Anatomy Laboratory

X108 • 1 semester unit in Integrative Biology

Focus on the correlation between the structure and function of the various body systems, and examine topics such as the musculoskeletal, nervous, endocrine, cardiovascular, respiratory, urinary, and reproductive systems. Gain an understanding of how the structures of the various body systems are related to their functions. Become familiar with dissection and basic microscopic examination of tissues. Biology majors, premedical and pre-health students, and those looking for a career change or to refresh their biological knowledge can benefit greatly from this experience.

Prerequisite: General Human Anatomy X104 must be completed with a C or better or taken concurrently.

Sec. 1 EDP 416552
David Larue, M.A.
15 meetings
Mondays, 6:30–9:30 pm
January 24–May 9 (no meeting February 21)
Oakland: Merritt College, 12500 Campus Dr. • $795

Sec. 2 EDP 416560
James Smiley, B.A., B.C.
15 meetings
Tuesdays, 6:30–9:30 pm
January 25–March 3
Hayward: Life Chiropractic College West, 25001 Industrial Blvd., Room 170 • $795

Sec. 3 EDP 416578
James Smiley, B.A., B.C.
15 meetings
Wednesdays, 7–10 pm
January 26–May 11 (no meeting April 20)
Oakland: Merritt College, 12500 Campus Dr. • $795

Mammalian Systemic Physiology

X109 • 3 semester units in Integrative Biology

Study fundamental concepts of mammalian physiology (primarily human), including neural, muscular, cardiovascular, respiratory, renal, endocrine, digestive, and reproductive physiology. Explore in detail homeostasis; molecular and cellular physiology; and the functions of tissues, organs, and organ systems. At the end of the course, you better understand current topics of experimental research and grasp key concepts of experimental research. Biology majors, premedical and pre-health students, as well as those looking for a career change or to refresh their physiological knowledge, can benefit greatly from this course.

Prerequisite: One year of college-level general biology for majors and chemistry

EDP 416644
Sandra Hsu, Ph.D.
10 meetings
Saturdays, 10 am–2:30 pm
January 22–April 23 (no meeting February 19, March 19, and April 2 and 9)
San Francisco: Art and Design Center • $820

Introduction to Human Physiology

X108 • 3 semester units in Molecular and Cell Biology

Important: Special academic policies apply to XB and XBO courses. See p. 238.

Understand the complexities of the cells, tissues, and major organs and systems of the human body. Study a different system each week, concentrating on basic mechanisms underlying human life processes and important diseases affecting normal human function.

Prerequisite: One year of high school or college chemistry

Sec. 1 EDP 416602
Mitchell Blank, D.C.
15 meetings
Mondays, 6–9 pm
January 24–May 9 (no meeting February 21)
Berkeley: Golden Bear Center • $820

Sec. 2 EDP 416610
Nidiu Ahuja, Ph.D.
15 meetings
Wednesdays, 6–9 pm
January 26–May 4
Belmont: Belmont Center • $820

Sec. 3 EDP 416786
Keith Earnshaw, M.S., Ph.D.
Enroll anytime
Online, proctored final exam • $795

Human Physiology Laboratory

X406.1 • 1 semester unit in Molecular and Cell Biology

Study the fundamental concepts of human physiology—including reproductive, neural, muscular, cardiovascular, respiratory, renal, endocrine, and sensory systems—using hands-on experiments and computer simulations. Measure and analyze student EKG, blood pressure, respiratory volume, and reflexes.

Prerequisite: Introduction to Human Physiology X108 or Mammalian Systemic Physiology X109 must be completed with a C or better or taken concurrently.

Sec. 1 EDP 416586
Miguel Angeles, M.D.
15 meetings
Saturdays, 9 am–12 pm
January 22–May 14
Oakland: Merritt College, 12500 Campus Dr. • $795

Sec. 2 EDP 416594
Mitchell Blank, D.C.
15 meetings
Thursdays, 6–9 pm
January 27–May 5
Belmont: Belmont Center • $820

Introduction to Medical Microbiology

X111 • 3 semester units in Public Health

Infectious diseases present formidable challenges to human health and well-being. Study medically important microbes from the perspective of disease in this introductory survey designed for students in microbiology, medical technology, and nursing, as well as for those with a biological science background who are interested in infectious diseases and their causes. Learn common terms and basic concepts of medical microbiology, then focus on the mechanisms of microbial diseases. Gain an awareness of the versatility of microbes and an understanding of how humans and microbes coexist.

Prerequisites: One year of college-level general biology for majors and chemistry

Sec. 1 EDP 416651
Gillian Edwards, M.S., SM (NRCM), RM (NRCM), PHM
15 meetings
Mondays, 6:30–9:30 pm
January 24–May 9 (no meeting February 21)
Berkeley: Golden Bear Center • $820

Sec. 2 EDP 426429
Srinivas Garlapati, Ph.D.
15 meetings
Mondays, 2–5 pm
January 24–May 9 (no meeting February 21)
San Francisco: Downtown Center • $820

Sec. 3 EDP 416669
Gillian Edwards, M.S., SM (NRCM), RM (NRCM), PHM
15 meetings
Wednesdays, 6:30–9:30 pm
January 26–May 4
Berkeley: Golden Bear Center • $820

Sec. 4 EDP 416677
Elizabeth Joyce, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 5
San Francisco: Art and Design Center • $820

San Francisco: Downtown Center • $820
Microbiology Laboratory
X491.1 • 1 semester unit in Public Health
Get an introduction to various microorganisms of particular importance to human health, with emphasis on those involved in causing human disease. Laboratory work includes microscopy, staining, aseptic and sterile transfer techniques, assessment of morphological and biochemical properties of microorganisms, medical and biotechnological-related procedures, and microbial identification.

Prerequisite: Introduction to Medical Microbiology. X111 must be completed with a grade of C or better or taken concurrently.

EDP 416693
Gillian Edwards, M.S., SM (NRCCM), RM (NRCCM), PHM
15 meetings
Saturday, 9 am–12 pm
January 22–May 14
(no meeting February 19 and April 23)
Oakland: Merritt College,
12500 Campus Dr. • $795

Cell Biology
X116 • 3 semester units in Molecular and Cell Biology
45 hours CE credit for nurses: BRN provider 00226
Get an introduction to cell biology from a molecular perspective. Learn how cells are studied, and investigate current knowledge of cell membranes, organelles, cytoskeletons, cell growth and division, cell communication, and particularly the mechanism underlying cellular events. At the end of this course, you should have an understanding of general concepts in cell biology and be able to read and interpret cell biology literature.

Prerequisite: One year of college-level general biology for majors

Sec. 1 EDP 416172
Raymond Blind, Ph.D.
15 meetings
Tuesdays, 6:30–9:30 pm
January 18–April 26
San Francisco: Downtown Center • $820

Sec. 2 EDP 416180
Nidhi Ahuja, Ph.D.
15 meetings
Mondays, 6:30–9:30 pm
January 24–May 9 (no meeting February 21)
Belmont: Belmont Center • $820

Developmental Biology
X138 • 3 semester units in Molecular and Cell Biology
45 hours CE credit: BRN provider 00226
An elective in the Certificate Program in the Essentials of Green Chemistry

How does a single cell, the fertilized egg, give rise to a complex organism that contains many different cell types, tissues, and organs? How do the organs develop to the right size in the right place to give rise to a functional animal? Developmental biology seeks to answer these questions by studying cellular behavior and molecular pathways that control patterning in the developing embryo. Study different model organisms, with an emphasis on vertebrates, and cover the most recent advances and techniques in developmental biology.

Prerequisite: One year of college-level general biology for majors and chemistry

Sec. 1 EDP 416206
Kimberly Mulligan, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 5
Belmont: Belmont Center • $820

Sec. 2 EDP 416198
Asha Harikrishnan, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 12 (no meeting March 24)
Berkeley Campus: 151 Barrows Hall • $820

Biochemistry
X115A • 3 semester units in Molecular and Cell Biology
Study the common molecular processes and chemical reactions that underlie diverse life forms. Begin by examining the relationship between the three-dimensional structure of proteins and their biological activity. Next, look at the mechanism of enzyme action, how enzymes recognize their substrates and enhance reaction rates, and the control of enzymatic activity. Finally, develop an integrated picture of metabolism in the body by examining metabolic pathways and their regulation and control.

Prerequisites: One year of college-level general biology for majors and organic chemistry

Sec. 1 EDP 416131
Cary Lai, Ph.D.
15 meetings
Mondays, 6:30–9:30 pm
January 24–May 9 (no meeting February 21)
San Francisco: Downtown Center • $820

Sec. 2 EDP 416149
Mary Alice Yund, Ph.D., Extension Honored Instructor
14 meetings
Tuesdays, 6:30–9:45 pm
January 25–May 3 (no meeting March 22)
Berkeley Campus: 103 Genetics & Plant Biology Building • $820

Sec. 3 EDP 416156
Louisa Man, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 5
Belmont: Belmont Center • $820

Introductory Biochemistry
X105 • 3 semester units in Molecular and Cell Biology
Understand the basic chemistry and overall structure of the most important biological macromolecules, including the study of enzyme catalysis; cellular architecture; intermediary metabolism; and special processes such as photosynthesis, biological oxidation, and energy production. Explore the various ways that biological systems react to their environment.

Prerequisites: College-level courses in elementary chemistry and biology required. One or two semesters of organic chemistry is recommended.

EDP 867945
John M. Forger III, Ph.D., Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $770
Professional Biomedical Sciences Program

One of the pressing challenges in the biomedical sciences is how to turn advances in the basic sciences into new treatments and cures for unmet medical needs. Continuing education for biomedical professionals not only enhances innovation and discovery but also catalyzes the conversion of basic research into products that address critical needs. With the Professional Biomedical Sciences Program, you can fill in knowledge gaps from previous academic training, learn about current topics and techniques, and participate in a flexible and up-to-date professional development program that prepares you for career advancement within the biosciences.

A required advising seminar ensures that a customized and advanced professional curriculum is designed to meet your needs and career goals.

Curriculum Requirements
The curriculum consists of 2 required courses and a varied number of electives for a minimum of 10 semester units (150 hours of instruction).

Required Courses
• Advanced Biomedical Seminar: Orientation and Career Compass (offered every term)
• Current Topics in the Biosciences X427 (offered every term)

Electives
For a complete list of electives available this term, see extension.berkeley.edu/spos/biomedicalsiences.html

Learn More and View the Flyer
extension.berkeley.edu/spos/biomedicalsiences.html
(510) 642-1061 science@extension.berkeley.edu

Enroll using EDP 402404

Introduction to Neurobiology
X160 • 4 semester units in Molecular and Cell Biology

Important: Special academic policies apply to XB courses. See p. 238.
Get a general understanding of the nervous system, including how it functions, how it develops, and how it changes with learning and memory in this introductory course geared for students who already have some background in the biological sciences, typically upper-division undergraduates. Study increasingly complex systems, from the level of molecules to cells to simple circuits to complex networks to higher brain functions, including special sections on brain diseases.

Prerequisites: Physics and a year of college-level general biology for majors

EDP 416727
Natalia Caporale, Ph.D.
20 meetings
Wednesdays, 7–10 pm
January 26–May 18 (also Saturdays, February 5, March 5, and April 16, 1–4 pm)
Berkeley: Golden Bear Center • $920

Genetics
X143 • 3 semester units in Molecular and Cell Biology

45 hours CE credit: BRN provider 00226
Learn to integrate the most important concepts in classical and molecular genetics into an overall picture of what a gene is, how it functions, how it may be altered, and how it is inherited. Study the molecular basis of gene function and mutation, Mendelian genetics, transmission systems, regulation of cellular processes, developmental genetics, cytoplasmic inheritance, population genetics, and multifactorial inheritance. Learn about recent advances in biotechnology that have genetic implications, including the Human Genome Project and advances in genetic engineering technology.

Prerequisite: A year of college-level general biology for majors

Sec. 1 EDP 416487
Crystal Botham, Ph.D.
15 meetings
Wednesdays, 6:30–9:30 pm
January 26–May 4
Belmont: Belmont Center • $820

Sec. 2 EDP 416495
Mary Alice Yund, Ph.D., Extension Honored Instructor
14 meetings
Thursdays, 6:30–9:45 pm
January 27–May 5 (no meeting March 24)
Berkeley Campus: 103 Genetics & Plant Biology Building • $820

Sec. 3 EDP 897272
Keith Earnshaw, M.S., Ph.D.
Enroll anytime
Online, proctored final exam • $795

Principles of Molecular Biology
X107A • 3 semester units in Molecular and Cell Biology

Study DNA structure and replication, RNA and protein synthesis, and the genetic code. Gain an understanding of the fundamental concepts and complexities of aspects of molecular biology, including both structures and processes, common to most organisms. Critically evaluate current scientific literature, learn about important molecular biology tools and techniques, and investigate the experimental basis of molecular biology.

Prerequisites: College chemistry and general biology required. Some background in genetics and cell biology is helpful.

Sec. 1 EDP 416933
Jennifer Wade, Ph.D.
15 meetings
Wednesdays, 6:30–9:30 pm
January 26–May 11 (no meeting March 23)
Berkeley: Golden Bear Center • $820

Sec. 2 EDP 416941
Cary Lai, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 5
Belmont: Belmont Center • $820

Principles and Techniques of Molecular Cell Biology
X121 • 3 semester units in Molecular and Cell Biology

45 hours CE credit: BRN provider 00226
Learn how cells function by exploring gene regulation and expression, cell regulation, genetic engineering, the Human Genome Project, the genetics of cancer, immune system diseases, and DNA technology in forensics.

Prerequisite: One year of college-level general biology

EDP 867960
John M. Forger III, Ph.D., Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $795
Molecular Endocrinology

X125 • 3 semester units in Molecular and Cell Biology

An elective in the Certificate Program in the Essentials of Green Chemistry

Study the molecular mechanisms of hormone and growth factor action. After a basic primer in general endocrinology, you examine the various mechanisms of steroid and peptide hormone action, as well as the cross-talk between the pathways and their role in cellular signaling. Then, focus your study on how these pathways are involved in human diseases such as diabetes, thyroid disorders, and endocrine-related cancer.

EDP 416719
Shym Sundar, Ph.D.
15 meetings
Saturdays, 10 am–1 pm
January 22–May 21
(no meeting February 19, March 26, and April 16)
Berkeley Campus: See Web for updates • $820

Medical Virology

X142 • 3 semester units in Public Health

45 hours CE credit: BRN provider 00226

Learn about Marburg, West Nile, HIV, the flu, and most other viruses of current medical importance. Study the entire process of virus-mediated disease by first building a foundation in the molecular understanding of the virus infection cycle and then focusing on public health monitoring, disease processes, and treatments. This course is recommended if you have an interest in the medical, academic, or industrial fields of public health or molecular biology of viruses.

Prerequisite: One year of college-level general biology for majors

EDP 416685
Hilde Stubdal, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 12 (no meeting March 24)
Berkeley: Golden Bear Center • $820

HIV/AIDS: From Particles and Pathogenesis to Pandemic and Politics

X400.6 • 2 semester units in Public Health

In this comprehensive overview of the HIV/AIDS epidemic, you explore key aspects of HIV epidemiology, the underlying molecular and cellular biology, the complex interactions of the virus with the host immune system, current drug therapies, vaccine development, and public health approaches toward the global HIV pandemic. You gain a foundational understanding of HIV, its biology, and its implications for the health care system and society at large.

Prerequisite: Introductory undergraduate biology course

EDP 416545
Michael Bachmann, Sc.D.
10 meetings
Tuesdays, 6:30–9:30 pm
January 25–March 29
Belmont: Belmont Center • $545

NEW THIS TERM
Introduction to Parasitology

X401 • 2 semester units in Integrative Biology

Investigate the life cycles, modes of transmission, and impacts that parasites have on human populations. Focusing on parasites that are relevant to human health—including worms, amoeba, and other macroparasites—you examine the influence parasites have on communities around the world. Learn to discuss the life cycle, biology, transmission, and mortality caused by common parasites, including protozoans, anthropods, nematodes, and flatworms.

Prerequisite: One year of college-level biology

EDP 416792
Jodell Linder, Ph.D.
10 meetings
Saturdays, 9:30 am–12:30 pm
January 22–April 9
(no meeting February 19 and March 26)
Belmont: Belmont Center • $545

Immunology

X110 • 3 semester units in Molecular and Cell Biology

45 hours CE credit: BRN provider 00226

The immune system plays the crucial role of battling infection and cancer in the body. As a defense system, it must recognize and distinguish between what is foreign and what is self. Examine the basic principles of immunology, and study the tissues and cells that make up the immune system. Understand the structure and function of immunoglobulins, and investigate the nature of their interactions with antigens. Learn to discuss biotherapeutics, cancer, and AIDS from an informed standpoint.

Prerequisite: One year of college-level general biology for majors

Sec. 1 EDP 846121
Monica Ranes-Goldberg, Ph.D.
January 18–April 12
Online • $799

Sec. 2 EDP 416628
Sara Cooper, Ph.D.
15 meetings
Tuesdays, 6:30–9:30 pm
January 25–May 3
Belmont: Belmont Center • $820

Sec. 3 EDP 416636
Amy S. Morgan, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 5
San Francisco: Downtown Center • $820

Sec. 4 EDP 867952
Amy S. Morgan, Ph.D.
Enroll anytime
Online, proctored final exam • $795

NEW THIS TERM
Immunobiology: Molecular Pathogenesis and Inflammation

X409 • 2 semester units in Molecular and Cell Biology

Get a comprehensive overview of the basic principles in immunology, including innate immunity, the development of mature lymphocyte repertoire, antigen recognition, and adaptive responses to foreign and self antigens. Examine these basic principles in conjunction with an overview of the various inflammatory processes—such as viruses, bacteria, fungi, and worms—that protect humans from disease pathogens. You also study genetics and the immunological inflammatory mechanisms that can result in allergy, asthma, cancer, and autoimmunity.

EDP 426023
Donna Flesher, Ph.D.
10 meetings
Mondays, 6:30–9:30 pm
January 31–April 11 (no meeting February 21)
Belmont: Belmont Center • $545

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The Biology of Human Cancer
X124 • 3 semester units in Molecular and Cell Biology
An elective in the Certificate Program in the Essentials of Green Chemistry
Learn cancer biology fundamentals, including cell proliferation, cell death, the process of metastasis and tumor progression, oncogenes and tumor suppressor genes, and cancer therapeutics. Explore the latest scientific and clinical research on cancer through readings and presentations.

EDP 416164
Elizabeth Alli, Ph.D.
15 meetings
Saturday, 1:30–4:30 pm
January 22–May 21 (no meeting February 19, March 26, and April 16)
Berkeley Campus: See Web for updates • $820

The Biology of Cancer
X26 • 3 semester units in Molecular and Cell Biology
Examine the molecular, cellular, and genetic basis for the 270 diseases called cancer. Topics include the biology of uncontrolled cellular growth, the etiology of cancer, clinical presentation, diagnosis, staging, treatment, and the psychological effects of cancer on patients and their families.

A background in high school or college-level biology is recommended.

EDP 867994
David Lieu, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Marine Biology
X55 • 3 semester units in Integrative Biology
Examine the types of organisms that inhabit the marine environment and the types of habitats and ecological systems in seas and oceans. In this introductory course, you also consider human use of the marine environment and the resulting problems and issues, including pollution, habitat modification, and exploitation of resources.

EDP 877035
Stephen W. Shaner, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Advanced Bioniscience
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extension.berkeley.edu/sciences
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online@unex.berkeley.edu
extension.berkeley.edu/online

Free Information Session:
Professional Biomedical Sciences Program
With the Professional Biomedical Sciences Program, you can fill in knowledge gaps from previous academic training, learn about current topics and techniques, and participate in a flexible and up-to-date professional development program that prepares you for career advancement within the biosciences. Come to a free, no-obligation event to learn how you can benefit from this new program. For details, see p. 156 or visit extension.berkeley.edu/spos/biomedicalsciences.html.

EDP 406702
1 meeting
Saturday, 2:30–3:30 pm
January 29
San Francisco: Downtown Center • FREE

EDP 406694
1 meeting
Saturday, 2:30–3:30 pm
May 21
San Francisco: Downtown Center • FREE

Introduction to Bioethics
X400 • 1 semester unit in Public Health
An elective in the Certificate Program in the Essentials of Green Chemistry
Gain an understanding of the fundamental issues in modern bioethics and health care ethics. You explore policy issues and issues that health care workers face in their daily routines, and then you incorporate that knowledge into a presentation that reflects your new understanding of bioethics.

EDP 406983
Priya Venkatesan, Ph.D.
10 meetings
Wednesday, 6:30–9:30 pm
January 19–March 23
Berkeley Campus: 155 Barrows Hall • $545

Introduction to Synthetic Biology
X426 • 2 semester units in Molecular and Cell Biology
Learn the core principles of the nascent and exciting field of synthetic biology. Learn how researchers create and redesign biological parts, devices, and systems. The course begins with a review of cellular components and gene expression and expands into current production of protein and small molecule products from biological systems. Develop an understanding of the analytical methods and applications used downstream in the production cycle, get insight into emerging technologies, and examine the anthropological implications of these new creations and designs.

Prerequisites: One year of college-level general biology for majors and chemistry

EDP 416032
Instructor to be announced
10 meetings
Thursday, 6:30–9:30 pm
March 3–May 12 (no meeting March 24)
Berkeley Campus: 185 Barrows Hall • $545
Molecular Pharmacology
X410  •  2 semester units in Molecular and Cell Biology

Molecular pharmacology is the study of drugs and how they interact with the cell at a molecular level. Designed for professionals working in pharmaceutical or biotechnology fields, this course examines advances in molecular pharmacology that have changed understanding of the ways in which drugs act. The instructors discuss the interaction between drug or neurotransmitter and receptor, the interaction between receptor and cell, and the relationship between receptors and drug design. In addition to the role of recombinant DNA technology and its use within the field, plan to study recent research on the structure and function of receptors and the application of this research to the design of novel therapeutics.

Prerequisite: One year of college-level general biology for majors required. Molecular biology and biochemistry recommended.

EDP 416040
Instructor to be announced
10 meetings
Saturdays, 10 am–1 pm
January 22–April 2 (no meeting February 19)
San Francisco: Art and Design Center • $545

Introduction to Biostatistics
X471  •  3 semester units in Molecular and Cell Biology

The health and behavioral sciences commonly use several statistical methods (linear regression, ANOVA, logistical regression, survival analysis, and nonparametric methods) to study biological problems. Gain the statistical skills to read scientific articles in your fields, understand the statistical methods used, and interpret the results on your own. Learn to use computers and software for statistical analysis. This course is designed for upper-division undergraduate students, premedical students, and professionals who are interested in novel therapeutics.

Prerequisites: Basic mathematics course and computer literacy

EDP 416016
Irena Cenzer, M.A.
15 meetings
Tuesdays, 6:30–9:30 pm
January 11–April 19
San Francisco: Downtown Center • $820

Stem Cell Biology, Research, and Discovery
X424  •  3 semester units in Molecular and Cell Biology

Review the science and current research topics in the field of human embryonic stem cells, and learn how they are being applied to regenerative medicine. Examine the basic elements of human embryonic stem cell biology and development as well as the derivation, cultivation, and development of technologies in the field. This course is associated with three other core courses that focus in detail on the ethical, business, and process development issues surrounding research, development, and commercialization of therapies and products from human embryonic stem cells.

EDP 426072
R. Geoffrey Sargent, Ph.D.
15 meetings
Wednesdays, 6:30–9:30 pm
January 12–April 20
San Francisco: Downtown Center • $1,135

Drug Design and Discovery
X412  •  2 semester units in Chemistry

Designed for individuals working or interested in the pharmaceutical and biotechnology industries, this course focuses on issues related to identifying and optimizing a drug candidate for clinical development. Rather than surveying classes of drugs, you study representative examples that exemplify important principles applicable to understanding many classes of drugs in a variety of therapeutic areas. Prepare to analyze journal articles, work in groups to solve problems related to drug discovery, and develop your scientific presentation skills.

EDP 426114
Thomas Renau, Ph.D.
10 meetings
Tuesdays, 6:30–9:30 pm
January 25–March 29
San Francisco: Downtown Center • $600

Ion Channels as Targets for the Drug Discovery Industry
X418  •  2 semester units in Molecular and Cell Biology

Ion channels are among the most prominent biochemical entities being targeted by the new drug discovery industry. Acquiring new knowledge and training in this field provides the required skills to work on project teams dealing with this class of molecular targets in biotech and pharmaceutical companies. The course is for those with a bachelor of science degree or any other professionals new to the field or already involved in the drug discovery and development industry.

Prerequisites: Undergraduate-level courses in general biology and molecular biology or cell biology.

EDP 426098
Arturo Picones, Ph.D.
10 meetings
Tuesdays, 6:30–9:30 pm
February 1–April 5
Belmont: Belmont Center • $625

Toxicology and Risk Assessment

Examine the toxic effects that hazardous chemicals have on biological systems, including dose-response curves, mechanisms of toxicity, carcinogenesis, and reproductive hazards.

For course schedule, see p. 182.

Epigenetics of Human Development and Disease
X423  •  3 semester units in Molecular and Cell Biology

Epigenetics is the study of heritable changes in gene expression that do not involve changes in the DNA sequence. Epigenetic mechanisms play important roles in development from a fertilized egg into a complex human being, as well as in aging and in various diseases (including cancer). Prepare to study topics such as DNA methylation, histone modification, RNAi, cancer epigenetics, stem cells, and the environment (for example, nutrition and stress) as a potential modifier of our own epigenome.

Although there are no formal prerequisites to this course, some background in molecular biology and genetics is helpful.

EDP 897777
Rebekah Marsh, Ph.D.
Enroll anytime
Online • $795

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### General Chemistry I

**X19A** • 3 semester units in Chemistry

Get an introduction to the fundamental concepts of inorganic chemistry, including matter, atoms, molecules, solutions, thermochemistry, chemical bonding, and intermolecular forces. General Chemistry I is designed for biology, premedical, and pre-health students. It is also appropriate for returning students interested in chemistry and for professionals in other disciplines considering a career change to the sciences. This course is associated with General Chemistry Laboratory I X19.1A. The lecture portion of the course may be taken without the laboratory. 

*Prerequisite:* General Chemistry I X19A must be completed with a C or better or taken concurrently.

**Sec. 1 EDP 426080**
Gregory Watkins, Ph.D.
15 meetings
Wednesdays, 6–10 pm
January 26–May 11 (no meeting March 23)
Berkeley Campus: 210 Latimer Hall • $795

**Sec. 2 EDP 416396**
Jennifer Liu, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 12 (no meeting April 7)
Redwood City: Cañada College, Building 18, Room 305 • $795

### General Chemistry II

**X19B** • 3 semester units in Chemistry

Study the fundamental concepts of inorganic chemistry, including properties of solutions, kinetics, equilibria, thermodynamics, electrochemistry, nuclear chemistry, metals, nonmetals, and other topics of interest. General Chemistry II is aimed at biology majors and premedical students, this course is also appropriate for returning students interested in chemistry and for professionals in other disciplines considering a career change to the sciences. It is associated with General Chemistry Laboratory II X19.1B. Lecture may be taken without the laboratory.

*Prerequisite:* General Chemistry I X19A completed with a C or better

**Sec. 1 EDP 416354**
Joshua Patin, Ph.D.
15 meetings
Mondays, 2:30–5:30 pm
January 24–May 9 (no meeting February 21)
Berkeley: Golden Bear Center • $820

**Sec. 2 EDP 416362**
Samuel Gillette, Ph.D.
15 meetings
Mondays, 7–10 pm
January 24–May 16
(no meeting February 21 and March 21)
Berkeley Campus: 20 Barrows Hall • $820

### General Chemistry Laboratory I

**X19.1A** • 1 semester unit in Chemistry

Get an introduction to the fundamental concepts of inorganic chemistry, including matter, atoms, molecules, solutions, thermochemistry, chemical bonding, and intermolecular forces. Develop laboratory skills such as instrumentation, data analysis, and observation skills. Designed for biology majors and premedical students, this course is also appropriate for returning students interested in chemistry and for professionals in other disciplines considering a career change to the sciences. It is associated with General Chemistry I X19A.

*Note:* There is an additional $200 fee if you withdraw within seven days of the first class meeting.

**Sec. 1 EDP 426000**
Gregory Watkins, Ph.D.
15 meetings
Wednesdays, 6–10 pm
January 26–May 11 (no meeting March 23)
Berkeley Campus: 210 Latimer Hall • $795

**Sec. 2 EDP 416396**
Jennifer Liu, Ph.D.
15 meetings
Thursdays, 6:30–9:30 pm
January 27–May 12 (no meeting April 7)
Redwood City: Cañada College, Building 18, Room 305 • $795

### General Chemistry Laboratory II

**X19.1B** • 1 semester unit in Chemistry

Learn the fundamental concepts of inorganic chemistry, including properties of solutions, kinetics, equilibria, thermodynamics, electrochemistry, nuclear chemistry, metals, nonmetals, and other topics of interest. Emphasis is given to the development of laboratory skills, such as instrumentation, data analysis, and observation skills. This course is aimed at biology majors and premedical students. In addition, it is appropriate for returning students interested in chemistry and for professionals in other disciplines considering a career change to the sciences. It is associated with General Chemistry II X19B.

*Note:* There is an additional $200 fee if you withdraw within seven days of the first class meeting.

**Sec. 1 EDP 416404**
Poupak Khazaei Parsa, Ph.D.
15 meetings
Wednesdays, 7–10 pm
January 26–May 11 (no meeting March 23)
Berkeley Campus: 200 Latimer Hall • $795

**Sec. 2 EDP 416412**
Zoran Kurtovic, Ph.D.
15 meetings
Wednesdays, 7–10 pm
January 26–May 11 (no meeting March 23)
Berkeley Campus: 201 Latimer Hall • $795

**Sec. 3 EDP 416438**
Gurnam Singh, Ph.D.
15 meetings
Wednesdays, 7–10 pm
January 26–May 11 (no meeting March 23)
Berkeley Campus: 202 Latimer Hall • $795

**Sec. 4 EDP 416446**
Samuel Gillette, Ph.D.
15 meetings
Wednesdays, 7–10 pm
January 26–May 11 (no meeting March 23)
Berkeley Campus: 204 Latimer Hall • $795

### Introduction to Chemistry

**X16** • 3 semester units in Chemistry

This nonlab course offers an introduction to basic principles in chemistry and demonstrates the role chemistry plays in various aspects of everyday lives.

*Prerequisite:* Although a background in chemistry is not necessary, you are required to have a basic knowledge of math, including algebra.

**EDP 897645**
Weiwei Gu, Ph.D.
Enroll anytime
Online, proctored final exam • $770
Introductory Organic Chemistry
X18 • 3 semester units in Chemistry
Examine the compounds that comprise most of the mass in living things. Following an introduction to covalent bonding and isomerism, move into a detailed discussion of the molecular structures and properties of various classes of organic and other biologically important compounds.
Prerequisites: One course in introductory chemistry and knowledge of basic algebra
EDP 897652
Weiwei Gu, Ph.D.
Enroll anytime
Online • $770

Organic Chemistry I
X36A • 3 semester units in Chemistry
Learn the structure, nomenclature, bonding, properties, and reactions of carbon compounds—hydrocarbons and monofunctional and polyfunctional compounds—with emphasis on structures and mechanisms. The organic chemistry of alkanes, acids and bases, alkenes, alkynes, alcohols, ethers, sulfides, and epoxides are discussed. This course is aimed at science majors; premedical, pre-health, and returning students; and professionals interested in chemistry. Organic Chemistry Laboratory I X36.1A is associated with this course. This lecture may be taken without the laboratory.
Prerequisite: Completion of Organic Chemistry I X36A with a C or better
EDP 416735
Marguerite Desko, Ph.D.
15 meetings
Tuesdays, 6–10 pm
January 25–May 3
Belmont: Belmont Center • $920

Organic Chemistry Laboratory I
X36.1A • 2 semester units in Chemistry
Acquire a variety of fundamental laboratory techniques applicable to the study, separation, purification, and preparation of organic compounds. This course is designed for biology majors; premedical, pre-health, and returning students; and professionals interested in chemistry. Organic Chemistry Laboratory I X36.1A must be taken concurrently or already completed with a C or better.
EDP 416768
James Schwepppe, Ph.D.
15 meetings
Wednesdays, 6–10 pm
January 26–May 11 (no meeting April 6)
Redwood City: Cañada College, Building 18, Room 311 • $920

Organic Chemistry II
X36B • 3 semester units in Chemistry
Prepare to study reactions of functional groups and interactions of polyfunctional compounds, infrared spectroscopy, nuclear magnetic resonance, mass spectrometry, and ultraviolet-visible spectroscopy. You also get an introduction to biochemistry, lipids, carbohydrates, proteins, and nucleic acids. This course is designed for science majors, premedical and pre-health students, and professionals interested in chemistry. Organic Chemistry Laboratory II X36.1B is associated with this course. This lecture may be taken without the laboratory.
Prerequisite: Completion of Organic Chemistry I X36A with a C or better
EDP 416766
Instructor to be announced
15 meetings
Wednesdays, 6–10 pm
January 26–May 11 (no meeting April 20)
Oakland: Merritt College, 12500 Campus Dr. • $920

Biochemistry
Understand common molecular processes and chemical reactions that underlie diverse life forms.
For course schedule, see p. 155.

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Green Chemistry

Free Information Session:
Certificate Program in the Essentials of Green Chemistry
Sustainability issues are increasingly important to both individuals and industry. Specifically, public concern about the safety of chemicals presents businesses with new challenges for growth and competitive advantage. Learn how the certificate can educate and prepare you to seize these emerging opportunities.

For course schedule, see p. 182.

Principles of Green Chemistry
Learn the core principles of green chemistry, and connect your knowledge of green chemistry to your own experiences through real-world examples and projects.

For course schedule, see p. 182.

Current Topics in Green Chemistry
Whether you’re a chemical research professional or wish to enter the field, this course provides a look at the current research topics and activities in green chemistry.

For course schedule, see p. 182.

Toxicology and Risk Assessment
Examine the toxic effects that hazardous chemicals have on biological systems, including dose-response curves, mechanisms of toxicity, carcinogenesis, and reproductive hazards.

For course schedule, see p. 182.

Green Chemistry and Chemical Policy
Learn the current and historical policy context of industrial chemical regulation, as well as the relevance of the concepts and application of green chemistry and green engineering in moving humans collectively toward a more sustainable economy and society.

For course schedule, see p. 182.

Certificate Program in the Essentials of Green Chemistry
Developed in association with the UC Berkeley School of Public Health, the Certificate Program in the Essentials of Green Chemistry trains professionals in chemistry, engineering, public policy, toxicology, and business to work collaboratively with green chemistry colleagues in the United States and beyond.

See p. 183 for complete certificate details.

Physics

COURSE INFORMATION
(510) 642-1061
science@unex.berkeley.edu
extension.berkeley.edu/sciences

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Physics I
X3A • 3 semester units in Physics
Study the fundamental concepts of physics, including forces, properties of matter, kinetics, thermodynamics, heat, wave motion, fluids, and sound. This class is designed for biology, premedical, pre-health, and architecture students. In addition, it is appropriate for returning students interested in physics and professionals in other disciplines considering a career change to the sciences. This course is associated with Physics Laboratory I X3.1A. The lecture may be taken without the laboratory.

Prerequisites: Algebra and trigonometry

EDP 416800
Achilles Speliotopoulos, Ph.D.
15 meetings
Mondays, 6:30–10 pm
January 24–May 9 (no meeting February 21)
Belmont: Belmont Center • $920

Physics I Laboratory
X3.1A • 1 semester unit in Physics
Get an introduction to the fundamental concepts of physics, including introduction to forces, properties of matter, kinetics, thermodynamics, heat, wave motion, fluids, sound, and other topics of interest. This course is associated with Physics I X3A. Note: There is an additional $200 fee if you withdraw within seven days of the first class meeting.

Prerequisite: Physics I X3A must be completed with a C or better taken concurrently.

EDP 416834
Achilles Speliotopoulos, Ph.D.
14 meetings
Saturdays, 10 am–1:15 pm
January 29–May 21 (no meeting February 19, March 26, and April 2)
Redwood City: Cañada College, Building 16, Room 106 • $795

Physics II
X3B • 3 semester units in Physics
Get an introduction to fundamental concepts in physics including electricity, magnetism, electromagnetic waves, and optics. Aimed at biology, premedical, pre-health, and architecture students, this course is also appropriate for returning students interested in physics and professionals in other disciplines considering a career change to the sciences. This course is associated with Physics Laboratory II X3.1B. The lecture may be taken without the laboratory.

Prerequisite: Physics I X3A must be completed with a C or better.

Sec. 1 EDP 416818
Karim Wahba, Ph.D.
15 meetings
Thursdays, 6:30–10 pm
January 27–May 5
Berkeley Campus: 166 Barrows Hall • $920

Sec. 2 EDP 416826
Prabir Roy, Ph.D.
15 meetings
Thursdays, 6–10 pm
January 27–May 12 (no meeting March 31)
Berkeley: Golden Bear Center • $920

Green Chemistry

Free Information Session:
Certificate Program in the Essentials of Green Chemistry
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For course schedule, see p. 182.

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For course schedule, see p. 182.

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For course schedule, see p. 182.

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For course schedule, see p. 182.

Certificate Program in the Essentials of Green Chemistry
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See p. 183 for complete certificate details.
Geology and Environmental Sciences

COURSE INFORMATION
(510) 642-1061
science@unex.berkeley.edu
extension.berkeley.edu/sciences

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Contemporary Environmental Issues
X70 • 4 semester units in Environmental Science, Policy, and Management

Earth is besieged with great environmental pressures as the human population increasingly depletes the planet’s “natural capital.” In this course, you gain an understanding of the physical, biological, and ecological processes of the global ecosystem, as well as the human impact from cultural, social, and economic influences that disrupt these processes. Acquire an understanding of the roles played by government, business, scientists, advocacy groups, and individual citizens in shaping solutions to environmental problems and managing resources.

EDP 867929
Douglas Greenberg, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Physics Laboratory II
X3.1B • 1 semester unit in Physics

Get an introduction to fundamental concepts in physics, including electricity, magnetism, electromagnetic waves, and optics. Aimed at biology, premedical, pre-health and architecture students, this course is also appropriate for returning students interested in physics and professionals in other disciplines considering a career change to the sciences. This course is associated with Physics II X3B. Note: There is an additional $200 fee if you withdraw within seven days of the first class meeting.

Prerequisites: Physics I 3A and Physics Laboratory I X3.1A must be completed with a C or better. Physics II X3B must be completed with a C or better or taken concurrently.

Sec. 1 EDP 416842
Prabir Roy, Ph.D.
14 meetings
Saturdays, 9 am–12:15 pm
January 22–May 7
(no meeting February 19 and April 23)
Oakland: Merritt College,
12500 Campus Dr. • $795

Sec. 2 EDP 416859
Prabir Roy, Ph.D.
14 meetings
Saturdays, 1–4:15 pm
January 22–May 7
(no meeting February 19 and April 23)
Oakland: Merritt College,
12500 Campus Dr. • $795

Sec. 3 EDP 416867
Sudha Rao, Ph.D.
15 meetings
Tuesdays, 6:30–9:30 pm
January 25–May 10 (no meeting March 22)
Berkeley Campus: 211 LeConte Hall • $795

Sec. 4 EDP 416875
Shahfinaz Ali, Ph.D.
15 meetings
Tuesdays, 6:30–9:30 pm
January 25–May 10 (no meeting March 22)
Berkeley Campus: 231 LeConte Hall • $795

Concepts of Physics
X11 • 4 semester units in Physics

Gain an understanding of the principles of physics in the context of how everyday objects work. Intended for students majoring in the humanities and social sciences, as well as anyone with an interest in the subject, this course covers forces and motion, conservation laws, heat, fluids, vibrations and waves, electricity and magnetism, and sound and light, with emphasis on applying the principles to everyday experience. Study the concepts of physics with a minimum of mathematics.

EDP 897660
Raja Almukahhal, Ph.D.
Enroll anytime
Online, proctored final exam • $770

American Environmental and Cultural History
XBW160AC • 4 semester units in Environmental Science, Policy, and Management
(formerly XB160AC)

Important: Special academic policies apply to XBW courses. See p. 238. Winner of UC Berkeley’s Education Initiatives Award.

Explore the ways cultural groups have perceived, managed, and conserved the American environment from colonial times to the present. Investigate how attitudes toward resource development and nature have shaped the environmental movement. This course satisfies the American Cultures breadth requirement for the UC Berkeley campus. For more information regarding the breadth requirement, please visit http://americancultures.berkeley.edu.

EDP 897868
Douglas Greenberg, Ph.D.
Enroll anytime
Online, proctored final exam • $770
Free Information Session: Professional Program in Biopharmaceutical Business
The Professional Program in Biopharmaceutical Business features a comprehensive curriculum that encompasses the specific business needs of the biopharmaceutical industries. Focusing on the aspects of business and development unique to biotechnology, medical devices, vaccines, and pharmaceuticals, the program provides the knowledge you need to start, develop, expand, and operate a successful business in the life sciences and pharmaceutical industry. Electives draw from other areas within this industry to ensure that professionals from all backgrounds can communicate easily and understand the roles of various functions within disparate business units.

Curriculum Requirements
The curriculum consists of 7 required courses and 4 electives for a total of 11 semester units and 0.5 ceu (at least 170 hours of instruction).

Required Courses
- The Business of Biotechnology (offered every term)
- Strategic Management in Biopharmaceuticals X400.7 (offered every term)
- Entrepreneurship in the Life Sciences Industries X414.7 (offered every term)
- Biotechnology Business Development X415.1 (offered every term)
- Venture Funding and Due Diligence: Financing a Biotechnology Company X436.8 (offered every term)
- Initiating a Start-Up Company in the Life Sciences Industries X475.2 (offered every term)
- The Pharmaceutical Development Process X408.8 (offered every term)

Electives
For a complete list of electives available this term, see extension.berkeley.edu/spos/biopharmbusiness.html.

Learn More and View the Flyer
extension.berkeley.edu/spos/biopharmbusiness.html
(510) 642-1061
science@unex.berkeley.edu

Enroll using EDP 402397
Effective Presentation Skills for Scientists

X425 • 1 semester unit in Molecular and Cell Biology

An elective in the Professional Program in Biopharmaceutical Business

Focus on the skills needed to prepare and deliver a high-impact scientific presentation. Working professionals and students in professional or graduate science programs learn how to effectively prepare and comfortably deliver scientific presentations of various formats, including short research talks, research seminars, formal conference presentations, informal lab group meetings, and job talks. In addition, learn how to deliver constructive criticism. You should have a basic working knowledge of Microsoft PowerPoint.

EDP 426130
Sheryl Denker, Ph.D.
5 meetings
Tuesdays, 6:30–9:30 pm
April 26–May 24
San Francisco: Downtown Center • $695

Entrepreneurship in the Life Sciences Industries

X414.7 • 1 semester unit in Business Administration

A requirement in the Professional Program in Biopharmaceutical Business

Get an introduction to the complexities and unique problems of starting a life sciences company, particularly if you are an entrepreneur, investor, or government official who may work in or work with biotechnology, pharmaceuticals, or related disciplines. Gain exposure to the topics most critical for successfully founding, financing, and operating a life science company, and perform many of the same tasks that founders would normally undertake.

EDP 426155
Ryan Baidya, Ph.D.
5 meetings
Saturdays, 1–4 pm
March 19–April 16
Belmont: Belmont Center • $695

Initiating a Start-Up Company in the Life Sciences Industries

X475.2 • 1 semester unit in Business Administration

A requirement in the Professional Program in Biopharmaceutical Business

Get an introduction to the basic operational requirements for initiating a start-up company in the biotechnology or specialty pharmaceutical space, whether you are a budding entrepreneur or a research professional contemplating joining a start-up venture. Learn the necessary steps for developing an entrepreneurial idea into a funded and viable small company. Prepare to discuss in detail requirements for the following stages of development: patenting the technology, in-licensing technology, creating term sheets, and meeting with and securing venture capital or other types of funding.

EDP 426122
Joseph Vallner, Ph.D.
5 meetings
Saturdays, 1–4 pm
April 23–May 21
San Francisco: Downtown Center • $695

The Pharmaceutical Development Process

X408.8 • 2 semester units in Business Administration

A requirement in the Professional Program in Biopharmaceutical Business

Get a detailed picture of all aspects of the complex and highly interrelated activities involved in bringing a pharmaceutical discovery to approval and market. The focus is on drugs (small molecules); however, course discussions integrate biologics, diagnostics, and devices. This course is designed for executives, disciplinary experts, entry-level employees, investors, and others interested in a full understanding of the biopharmaceutical industry. Topics include industry environment, discovery and pharmacology, chemistry manufacturing and controls, toxicology, pharmacokinetics, program management, FDA inspections, biologics, assays and devices, clinical trial design and conduct, clinical trial statistics, pharmacogenomics, FDA compliance regulations, patents and intellectual property, and commercial development. Case studies are presented for group discussion. Breakfast, refreshments, lunch, and social hours are included. Enrollment is limited to 45.

EDP 426106
John Young, Ph.D.
5 meetings
Monday, 1–5 pm
April 11 (also Tuesday–Friday, April 12–15, 8:30 am–5:30 pm)
San Francisco: Downtown Center • $1,975
The Business of Biotechnology

Capture mysteries of the drug development process and the convoluted funding trail in biotechnology, from venture capital through that all-important initial public offering. Learn about the challenges of raising capital for life sciences start-ups from the perspective of a scientist, a founder, and an investor. Get acquainted with the concepts that drive the business of biotechnology and how most good financing decisions are driven by quantitative concepts. Get a sense of how venture capital deals in biotechnology are viewed and funded and what sources of information and funding are available. Hear about the rules of the game and how to play to win.

Constance McKee, M.B.A., is a founder and currently president and CEO of Manzanita Pharmaceuticals, Inc. McKee cofounded the California Antiviral Foundation, SynGenix Limited, where she served as chief executive, and BioE2E, where she served as a board member and president. Previously she has served as chief executive of Cambridge Quantum Fund I and coexecutive director of Americans for Cures Foundation. McKee is a recipient of a Bosch Fellowship.

EDP 426411
1 meeting
Tuesday, 5–7 pm
February 1
San Francisco: Downtown Center • FREE

Strategic Management in Biopharmaceuticals

X400.7 • 1 semester unit in Business Administration
A requirement in the Professional Program in Biopharmaceutical Business

Get an introduction to current topics in the management of pharmaceutical and biotechnology companies. Study the traditional blockbuster model of the pharmaceutical industry, and learn the critical ways in which that model is evolving due to competitive pressures and technological advances. You make extensive use of business cases and classroom exercises, M.B.A. style, while paying particular attention to the pharmaceutical value chain and valuations. You confront real-world business decisions in the biotechnology industry and examine strategies for exploiting competitive advantage using personalized medicine, targeted therapies, and commercial partnerships.

EDP 426379
Jonathan Usuka, Ph.D.
2 meetings
Sat., 9 am–5 pm
March 19 and March 26
San Francisco: Downtown Center • $695

Venture Funding and Due Diligence: Financing a Biotechnology Company

X436.8 • 1 semester unit in Business Administration
A requirement in the Professional Program in Biopharmaceutical Business

Focus on the financing how-tos for venture-funded start-up companies in the life sciences sector. Study contemporary start-up topics covering the history, culture, and evolution of biotech businesses and business models. You are introduced to the basics of starting a biotechnology or life sciences company from the perspective of a first-time entrepreneur. Creating a business, finding funding, and passing investor due diligence are covered in detail with many examples of successful biotech business models and funding sources.

EDP 426189
Frank Eckman, Ph.D.
5 meetings
Sat., 9 am–12 pm
April 23–May 21
San Francisco: Downtown Center • $695

Professional Biomedical Sciences Program

Learn about current topics and techniques, and participate in a flexible and up-to-date professional development program that prepares you for career advancement within the biosciences.

See p. 156 for complete program details.
Certificate Program in Clinical Research Conduct and Management

The human testing process, also known as a clinical trial, determines whether a drug, biologic, or medical device is safe and effective before it can be approved by regulatory authorities for marketing. Regulations and guidelines govern the clinical trials process, and a thorough knowledge of the procedures at every stage of the process is essential. The Certificate Program in Clinical Research Conduct and Management enables you to master practical aspects of clinical trial conduct and management, FDA regulations, International Conference on Harmonisation (ICH) and Good Clinical Practices (GCP) guidelines, procedural guidelines, and ethical considerations covering multiple aspects of clinical trials.

Curriculum Requirements
The curriculum consists of 4 required courses for a total of 12 semester units (180 hours of instruction).

Required Courses
- Introduction to Clinical Research: Clinical Trial Phases and Design X400.2 (offered spring and fall terms and online)
- Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities X400.3 (offered spring and fall terms and online)
- Clinical Trial Implementation: Site Initiation, Subject Recruitment, Monitoring, and Safety Reporting X400.4 (offered spring and fall terms and online)
- Clinical Trial: Data Analysis, Regulatory Audits, Vendor Selection, and Project Management X400.5 (offered spring and fall terms and online)

Learn More and View the Brochure
extension.berkeley.edu/cert/clinical.html
science@unex.berkeley.edu
(510) 642-1062
Enroll using EDP 402389
Good Clinical Practices (GCP): Drugs and Biologics

X475.3 • 2 semester units in Public Health

A requirement in the professional programs in Regulatory Affairs, in Biotechnology, in Biopharmaceutical Product and Process Development, and in Pharmaceutical Biotechnology

Whether you are new to product development and clinical research or currently involved in the field, this course provides a solid ethical and regulatory foundation in understanding Good Clinical Practices (GCP) for clinical research conducted under the U.S. Code of Federal Regulations (CFR) associated guidelines. In addition to discussing FDA audits and inspections in relation to GCP requirements, you cover the requirements for all stages of product development, from concept to FDA approval for marketing to post-marketing activities.

One year of college-level biology or biochemistry is preferred.

EDP 406785
Liz Wool, B.S.
6 meetings
Saturdays, 9 am–3 pm
January 22–March 19 (also Monday, April 11 and Saturday, April 23, 9 am–3 pm; no meeting January 29, February 12 and 19, March 5, and March 12)
San Francisco: Downtown Center • $995

Introduction to Clinical Research: Clinical Trial Phases and Design

X400.2 • 3 semester units in Public Health 45 hours CE Credit: BRN provider 00226

A requirement in the Certificate Program in Clinical Research and Management

Review the drug development process, principles of good clinical practice, clinical trial phases and design, principal players in clinical research, regulatory strategies, and medical terminology.

Sec. 1 EDP 846642
Michael Dubinsky, B.S.
January 4–March 1
Online • $1,895

Sec. 2 EDP 406934
Mary Ann Lenoci, M.A.
4 meetings
Saturdays, 9 am–5 pm
January 8–February 5 (also Saturday, February 26, 9 am–4 pm; no meeting January 29)
San Francisco: Downtown Center • $1,825

Sec. 3 EDP 846659
Karen Henry, M.P.H.
March 3–April 28
Online • $1,895

Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities

X400.3 • 3 semester units in Public Health 45 hours CE Credit: BRN provider 00226

A requirement in the Certificate Program in Clinical Research and Management, an elective in the Professional Program in Quality and Compliance for Biotechnology

Learn the procedures inherent to planning clinical trials, including protocol development, case report form design, IRB submission, site selection, prestudy visits, and more.

Prerequisites: Introduction to Clinical Research: Clinical Trial Phases and Design X400.2

Sec. 1 EDP 846428
Karen Henry, M.P.H.
January 4–March 1
Online • $1,895

Sec. 2 EDP 406942
Mary Ann Lenoci, M.A.
5 meetings
Saturday, 9 am–5 pm
February 12 (also Saturdays, April 2, April 16, April 30, and May 14, 9 am–5 pm)
San Francisco: Downtown Center • $1,825

Sec. 3 EDP 846444
Siu Po Sit, Ph.D.
March 3–April 28
Online • $1,895

Clinical Trial Implementation: Site Initiation, Subject Recruitment, Monitoring, and Safety Reporting

X400.4 • 3 semester units in Public Health 45 hours CE Credit: BRN provider 00226

A requirement in the Certificate Program in Clinical Research and Management

Get a thorough look at the role of clinical trial monitors. Understand the various aspects of study monitoring, such as data review, safety reporting, and drug accountability. Study global drug development and subject recruitment and retention, topics that are crucial to meeting study timelines.

Prerequisites: Introduction to Clinical Research: Clinical Trial Phases and Design X400.2 and Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities X400.3

Sec. 1 EDP 846451
Instructor to be announced
January 4–March 1
Online • $1,895

Sec. 2 EDP 846501
Instructor to be announced
March 3–April 28
Online • $1,895

Sec. 3 EDP 406967
Mary Ann Lenoci, M.A.
4 meetings
Saturday, 9 am–5 pm
April 2 (also Saturdays, April 23, May 7 and Mat 21, 9 am–5 pm)
San Francisco: Downtown Center • $1,825

Clinical Trial: Data Analysis, Regulatory Audits, Vendor Selection, and Project Management

X400.5 • 3 semester units in Public Health 45 hours CE Credit: BRN provider 00226

A requirement in the Certificate Program in Clinical Research Conduct and Management

Learn the clinical study report and other procedures at study close-out to prepare yourself for regulatory audits and inspections. Get an overview of project management and vendor selection in clinical research.

Prerequisites: Introduction to Clinical Research: Clinical Trial Phases and Design X400.2, Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities X400.3, and Clinical Trial Implementation: Site Initiation, Subject Recruitment, Monitoring, and Safety Reporting X400.4

Sec. 1 EDP 846485
Instructor to be announced
January 4–March 1
Online • $1,895

Sec. 2 EDP 846501
Instructor to be announced
March 3–April 28
Online • $1,895

Sec. 3 EDP 406967
Mary Ann Lenoci, M.A.
4 meetings
Saturday, 9 am–5 pm
April 2 (also Saturdays, April 23, May 7 and Mat 21, 9 am–5 pm)
San Francisco: Downtown Center • $1,825
Quality and Compliance

Free Information Session: Professional Program in Quality and Compliance for Biotechnology

Attend a free, no-obligation event to learn about the Professional Program in Quality and Compliance for Biotechnology. This program focuses on the areas of quality assurance, quality control, and regulatory compliance. These disciplines are critical in the growing and increasingly regulated biotechnology industry. In many cases, these regulations are the first-line assurance that your operations are in compliance with the extensive and ever-changing regulations imposed in the United States and worldwide. Meet instructors and staff who can answer your questions about how this program can help you meet the challenges in your biotech career. For details, see this page or visit extension.berkeley.edu/spos/compliance.html.

EDP 406660
1 meeting
Saturday, 11:30 am–12:30 pm
January 22
San Francisco: Downtown Center • FREE

EDP 406652
1 meeting
Saturday, 11:30 am–12:30 pm
May 7
San Francisco: Downtown Center • FREE

Principles of Quality and Compliance

X401.6 • 1 semester unit in Public Health

A requirement in the professional programs in Quality and Compliance for Biotechnology, in Regulatory Affairs, in Bioscience Manufacturing and Supply Chain, and in Biopharmaceutical Product and Process Development

Get an introduction to the regulatory authorities whose regulations must be implemented to ensure compliance with the laws governing the biotech industry. Learn to understand what the regulations require and how to apply them in principle.

Prerequisite: College-level biology or biochemistry, chemistry, or engineering

EDP 406843
Peter Calcott, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
January 29 and February 5
Berkeley: Golden Bear Center • $695

CMC Regulatory Compliance for Pharmaceutical Products

X401.1 • 1 semester unit in Public Health

A requirement in the professional programs in Regulatory Affairs and in Bioscience Manufacturing and Supply Chain; an elective in the Professional Program in Quality and Compliance for Biotechnology

Get an introduction to pharmaceutical product development and the concomitant Chemistry, Manufacturing, and Controls (CMC) requirements by regulatory agencies. As drug development moves from concept to commercialization, the breadth and depth of CMC information required in submissions increases in parallel. It is important to understand the level of CMC compliance expected. You examine the CMC elements of drug substance and drug product—and in particular which elements are required and in what detail—at each stage of development. You also survey FDA guidelines and Points to Consider.

EDP 406777
Instructor to be announced
2 meetings
Saturdays, 9 am–5 pm
March 5 and March 12
Berkeley: Golden Bear Center • $695

Good Manufacturing Practices (GMP): Quality Control (QC) in Quality and Compliance

X401.7 • 1 semester unit in Public Health

A requirement in the Professional Program in Quality and Compliance for Biotechnology

Get an introduction to the role of Quality Control (QC) and learn to distinguish between Quality Assurance (QA) and QC. Study the various elements and expectations of the regulations and how they must be implemented in industry. Gain up-to-date information on the role and function of the QC department and learn to critically understand what the regulations require and how to apply them. Biopharmaceutical and device professionals can master the project management tools and techniques in the pharmaceuticals, medical devices and biologics targeted to Chemistry, Manufacturing, and Controls (CMC) planning and implementation.

Prerequisite: One year of college-level biology, biochemistry, chemistry, or engineering

EDP 406793
Peter Calcott, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
May 14 and May 21
Berkeley: Golden Bear Center • $695

Professional Program in Quality and Compliance for Biotechnology

Build a thorough foundation in the skills and knowledge needed to perform and oversee quality and regulatory compliance functions within the biotechnology industry. Regulations and guidelines govern the manufacturing and clinical trials processes of drugs, biologics, and medical devices; therefore, a thorough knowledge of the procedures at every stage of the process is essential. This program reviews FDA regulations; International Conference on Harmonisation (ICH) and GXP principles, including Good Manufacturing Practices (GMP), Good Clinical Practices (GCP), and Good Laboratory Practices (GLP) guidelines; practical procedural guidelines; and ethical considerations covering the manufacture of drugs.

Curriculum Requirements

This program consists of 6 required courses and a minimum of 2 electives for a total of 10 semester units (150 hours of instruction). Because the discipline requires broad understanding of various aspects of the industry, the electives include courses from related and interfacing disciplines.

Required Courses

• Principles of Quality and Compliance X401.6 (offered spring term)
• Good Manufacturing Practices (GMP): Quality Assurance (QA) in Practice X401.4 (offered fall term)
• Good Manufacturing Practices (GMP): Quality Control (QC) in Quality and Compliance X401.7 (offered spring term)
• Inspections and Audits for Quality and Compliance X401.5 (offered fall term)
• Good Clinical Practices (GCP): Drugs and Biologics X475.3 (offered future term)
• Validation and Interfacing with Quality Assurance (QA) X401.8 (offered spring term)

Electives

For a list of available electives this term, visit extension.berkeley.edu/spos/compliance.html.

Learn More
extension.berkeley.edu/spos/compliance.html
(510) 642-1062
science@unex.berkeley.edu

Enroll using EDP 402363
Validation and Interfacing with Quality Assurance (QA)

X401.8 • 1 semester unit in Public Health

A requirement in the Professional Program in Quality and Compliance for Biotechnology

Get an introduction to the principles of validation and the associated requirements defined by regulatory authorities. Study the validation regulatory elements and expectations and how they must be implemented for quality. Examine the role of quality assurance (QA) and how quality and compliance requires interfacing with QA.

Prerequisites: College level biology and biochemistry or chemistry

EDP 406900
Peter Calcott, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
April 30 and May 7
Berkeley: Golden Bear Center • $695

Regulatory Affairs

Free Information Session: Professional Program in Regulatory Affairs

Discover how UC Berkeley Extension’s regulatory affairs program can help advance your training, whether you want to enter the biopharmaceutical industry or seek to manage regulatory affairs within your own company. For more information see this page or visit extension.berkeley.edu/spos/regulatory.html.

EDP 406645
1 meeting
Saturday, 1–2 pm
January 22
San Francisco: Downtown Center • FREE

EDP 406637
1 meeting
Saturday, 1–2 pm
May 7
San Francisco: Downtown Center • FREE

Principles of Regulatory Affairs

X401.3 • 1 semester unit in Public Health

A requirement in the professional programs in Regulatory Affairs and in Bioscience Manufacturing and Supply Chair; an elective in the Professional Program in Quality and Compliance for Biotechnology

Get an introduction to the regulatory authorities whose regulations and requirements must be implemented and met to ensure compliance with the laws governing this industry. Learn the steps leading to testing products in humans, the approval of products and post-approval requirements, and industry implementation.

Prerequisite: College-level biology, biochemistry, chemistry, or engineering

EDP 406850
Ronald Carlson, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
February 5 and February 12
Berkeley: Golden Bear Center • $695
Harmonization Across Worldwide Applications

X402.1 • 1 semester unit in Public Health

A requirement in the Professional Program in Regulatory Affairs

Master the role of regulatory affairs in the successful licensure of products across the world, including responsibilities and reporting relationships. Using case studies, learn to understand the similarities and differences in worldwide requirements for product licensure in the major markets and create a strategy for integrating the preparation for a timely, efficient submission.

Prerequisite: One year of college-level biology, biochemistry, chemistry, or engineering

EDP 406801
Ronald Carlson, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
April 2 and April 9
Berkeley: Golden Bear Center • $695

IND/CTA Enabling Studies and Agency Interfaces

X402.4 • 1 semester unit in Public Health

A requirement in the Professional Program in Regulatory Affairs

Regulatory affairs plays an important role during the first stages of product development in ensuring that all appropriate studies are performed to prepare and submit the IND/CTA. Understand this role, and master the initial steps that regulatory affairs professionals take in the product development life cycle, including the responsibilities as facilitators and conduits between companies and regulatory agencies. Using case studies, understand the various elements of IND/CTA enabling studies and how to negotiate with agencies to achieve success.

Prerequisite: One year of college-level biology, biochemistry, chemistry, or engineering

EDP 406819
Instructor to be announced
2 meetings
Saturdays, 9 am–5 pm
April 23 and April 30
San Francisco: Downtown Center • $695

Development and Manufacturing

COURSE INFORMATION
(510) 642-1062
science@unex.berkeley.edu
extension.berkeley.edu/biotechnology

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Bioscience Manufacturing

Free Information Session: Professional Program in Bioscience Manufacturing and Supply Chain

Learn how to get the training you need to perform and oversee supply chain and manufacturing functions within the biopharmaceutical industry. Attend a free, no-obligation evening to learn from Extension staff about how our courses can benefit your personal and career goals. For more information see this page or visit extension.berkeley.edu/spos/supplychain.html.

EDP 406611
1 meeting
Saturday, 1–2 pm
January 29
San Francisco: Downtown Center • FREE

EDP 406629
1 meeting
Saturday, 1–2 pm
May 21
San Francisco: Downtown Center • FREE

Principles of Manufacturing and Supply Chain

X475.7 • 1 semester unit in Public Health

A requirement in the professional programs in Regulatory Affairs, in Bioscience Manufacturing and Supply Chain, and in Biopharmaceutical Product and Process Development, an elective in the Professional Program in Quality and Compliance for Biotechnology

Study the principles of supply chain and the supply of materials for clinical trials and commercial sales. Master the regulations that must be followed, and understand how to implement them in operations to ensure compliance with the laws governing the biopharmaceutical industry.

Prerequisite: One year of college-level biology, biochemistry, chemistry, or engineering

EDP 406868
Frederic Ivchenko, M.B.A.
2 meetings
Saturdays, 9 am–5 pm
January 8 and January 22
San Francisco: Downtown Center • $695

NEW THIS TERM
Professional Program in Bioscience Manufacturing and Supply Chain

To get new drugs, biologics, and medical devices to market, trained professionals must work together to ensure compliance with industry standards and to meet requirements for licensure and approval. Companies must follow complex and rigorously controlled systems to manufacture these products for testing and commercial sale. This professional program prepares you to manage these processes.

In addition to FDA and other regulatory body regulations and requirements, you learn the International Conference on Harmonisation (ICH) principles and the Good Manufacturing Practices (GMP).

Curriculum Requirements
The curriculum consists of 11 required courses for a total of 12 semester units (180 hours of instruction).

Required Courses
• Principles of Manufacturing and Supply Chain X475.7 (offered every term)
• Principles of Regulatory Affairs X401.3 (offered every term)
• Principles of Quality and Compliance X401.6 (offered spring and summer terms)
• Principles of Product and Process Development X431 (offered every term)
• Procurement Through Distribution-Logistics X402.8 (offered spring term)
• Manufacturing Operations X402.5 (offered fall term)
• Outsourcing the Supply Chain X402.6 (offered future term)
• The Manufacturing Plant—Design Through Commissioning X402.9 (offered fall term)
• Preparing for Submissions and Inspections X402.7 (offered spring term)
• CMC Regulatory Compliance for Pharmaceutical Products X401.1 (offered spring term)
• Good Clinical Practices (GCP): Drugs and Biologics X475.3 (offered spring and fall terms)

Learn More and View the Flyer
extension.berkeley.edu/spos/supplychain.html
(510) 642-1062
science@unex.berkeley.edu

Enroll using EDP 402438
NEW THIS TERM
Preparation for Submissions and Inspections
X402.7 • 1 semester unit in Public Health
A requirement in the Professional Program in Bioscience Manufacturing and Supply Chain
Understand the role of supply chain and manufacturing, professionals operating in regulated operations, and the logistics of procurement of raw materials and components through the distribution of products. Examine the various elements and expectations of the regulations and how they must be implemented in industry.

Prerequisite: One year college-level biology, biochemistry, chemistry, or engineering
EDP 406835
Instructor to be announced
2 meetings
Saturdays, 9 am–5 pm
April 9 and April 16
San Francisco: Downtown Center • $695

Product and Process Development

Free Information Session: Professional Program in Bioprocess Development
Regulations, requirements, and guidelines govern certain parts of the development of products and processes and the eventual manufacture and distribution. Learn how to develop knowledge of the procedures at every stage of the process. Attend a free, no-obligation event where Extension staff outline a clear educational path for you to achieve your biopharmaceutical career goals. For more information see p. 173 or visit extension.berkeley.edu/spos/biopharmproduct.html.

EDP 406710
1 meeting
Saturday, 11:30 am–12:30 pm
January 29
San Francisco: Downtown Center • FREE

EDP 406728
1 meeting
Saturday, 11:30 am–12:30 pm
May 21
San Francisco: Downtown Center • FREE

NEW THIS TERM
Principles of Product and Process Development
X431 • 1 semester unit in Molecular and Cell Biology
A requirement in the professional programs in Biopharmaceutical Product and Process Development, in Bioscience Manufacturing and Supply Chain, and in Regulatory Affairs; an elective in the Professional Program in Quality and Compliance for Biotechnology
Gain an overview of product and process development in a biopharmaceutical setting. Learn the steps and requirements for developing products and processes for eventual use in clinical trials and introduction into commercial plants. Understand the various elements and expectations of the regulations and how they must be implemented. In addition to up-to-date information on regulatory agencies’ current expectations, you receive a critical understanding of the regulations’ requirements and how to apply them in principle.

Prerequisite: One year college-level biology, biochemistry, chemistry, or engineering
EDP 406827
Peter Calcott, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
March 12 and March 19
San Francisco: Downtown Center • $695

NEW THIS TERM
Procurement Through Distribution: Logistics
X402.8 • 1 semester unit in Public Health
A requirement in the Professional Program in Bioscience Manufacturing and Supply Chain
Gain an understanding of the roles of supply chain and manufacturing, professionals operating in regulated operations, and the logistics of procurement of raw materials and components through the distribution of products. Examine the various elements and expectations of the regulations and how they must be implemented in industry.

Prerequisite: One year college-level biology, biochemistry, chemistry, or engineering
EDP 406876
Frederic Ivtenko, M.B.A.
2 meetings
Saturdays, 9 am–5 pm
February 5 and February 12
San Francisco: Downtown Center • $695
NEW THIS TERM

Product Characterization and Analytical Development

X434 • 1 semester unit in Molecular and Cell Biology

A requirement in the Professional Program in Biopharmaceutical Product and Process Development

Understand the roles of process and product development in product definition and characterization, analytical method development and validation, and stability determination. Examine the elements and expectations of industry regulation and how to implement them.

EDP 406884
Cynthia Cowgill, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
April 16 and April 23
Berkeley: Golden Bear Center • $695

NEW THIS TERM

Product Definition and Delivery

X432 • 1 semester unit in Molecular and Cell Biology

A requirement in the Professional Program in Biopharmaceutical Product and Process Development

Gain an understanding of the product development process through the life cycle of the product. Understand the development of a product from concept to commercialization, taking it through its life cycle and its linkage to process development. Examine the various elements and expectations of industry regulations and how they must be implemented.

Prerequisite: One year of college-level biology, biochemistry, chemistry, or engineering

EDP 406926
Cynthia Cowgill, Ph.D.
2 meetings
Friday and Saturday, 9 am–5 pm
April 29 and 30
San Francisco: Downtown Center • $695

NEW THIS TERM

The Role of Product and Process Development Post-Commercialization

X429 • 1 semester unit in Molecular and Cell Biology

A requirement in the Professional Program in Biopharmaceutical Product and Process Development

Gain an understanding of the role of product and process development post-commercialization, as the technical troubleshooting organization working closely with the plant while developing improved processes and second-generation versions of the drug. Examine the various elements and expectations of industry regulations and how they must be implemented.

EDP 406892
Cynthia Cowgill, Ph.D.
2 meetings
Saturdays, 9 am–5 pm
May 14 and May 21
Berkeley: Golden Bear Center • $695

Curriculum Requirements

The curriculum consists of 11 required courses for a total of 12 semester units (180 hours of instruction).

Required Courses

- Principles of Product and Process Development X431 (offered every term)
- Principles of Regulatory Affairs X401.3 (offered every term)
- Principles of Quality and Compliance X401.6 (offered spring and summer terms)
- Principles of Manufacturing and Supply Chain X475.7 (offered every term)
- Developing Processes X430 (offered fall term)
- Manufacturing Under Regulations X433 (offered future term)
- Preparing for Commercialization X428 (offered fall term)
- Product Characterization and Analytical Development X434 (offered spring term)
- Product Definition and Delivery X432 (offered spring term)
- The Role of Product and Process Development Post-Commercialization X429 (offered spring term)
- Good Clinical Practices (GCP): Drugs and Biologics X475.3 (offered spring and fall terms)

Learn More and View the Flyer
extension.berkeley.edu/spos/biopharmproduct.html
(510) 642-1062
science@unex.berkeley.edu

Enroll using EDP 402446
UC Berkeley Extension’s Professional Program in Project Management for Biopharmaceuticals teaches biopharmaceutical-specific project management processes and offers exposure to the latest professional trends in the pharmaceutical, biotechnology, medical device, and diagnostics industries. Use your existing skills and experience to advance or shift your career in this booming field.

Curriculum Requirements
The curriculum consists of 6 required two-day courses for a total of 6 semester units (90 hours of instruction).

Required Courses
- Applying the Principles of Project Management in Preclinical Development X478.5 (offered summer and fall terms)
- Applying the Principles of Project Management in Clinical Development X484.2 (offered spring and fall terms)
- Applying the Principles of Project Management in Life-Cycle Management for Biopharmaceuticals X484.3 (offered spring and fall terms)
- Opportunities and Challenges in Managing Global Projects X484.4 (offered spring and fall terms)
- Alliance Management in the Biopharmaceutical Industry X484.5 (offered summer and fall terms)
- Best Practices Approaches in Project Management for Biopharmaceuticals, Medical Devices, and Vaccines X484.6 (offered spring and fall terms)

Learn More and View the Flyer
extension.berkeley.edu/spos/biopharmpm.html
(510) 642-1061
science@unex.berkeley.edu

Enroll using EDP 402339

Free Information Session: Professional Program in Project Management for Biopharmaceuticals
Come meet UC Berkeley Extension instructors and staff members, and find out more about the curriculum and direction of this program. An opening presentation is followed by a Q&A session. To reserve your space, please call (510) 642-4111. For more information, see this page or visit extension.berkeley.edu/spos/biopharmpm.html.

EDP 406678
1 meeting
Saturday, 2:30–3:30 pm
January 22
San Francisco: Downtown Center • FREE

EDP 406686
1 meeting
Saturday, 2:30–3:30 pm
May 7
San Francisco: Downtown Center • FREE

Opportunities and Challenges in Managing Global Projects
X484.4 • 1 semester unit in Business Administration
15 pdu: PMI provider 1173
A requirement in the Professional Program in Project Management for Biopharmaceuticals

Acquire the necessary project management tools and techniques to manage global projects. Learn how to manage resources across borders to take advantage of the growing opportunities and challenges of clinical trials in Europe, Asia, and Latin America. Learn through lectures, case studies, problem sets, class discussion, and student projects.

Prerequisites: See Web.

EDP 406603
Julie Bukar, M.B.A.
2 meetings
Friday and Saturday, 8:30 am–5 pm
April 15 and 16
Belmont: Belmont Center • $1,150

Applying the Principles of Project Management in Clinical Development
X484.2 • 1 semester unit in Business Administration
15 pdu: PMI provider 1173
A requirement in the Professional Program in Project Management for Biopharmaceuticals

Learn to use the tools and techniques of project management as they apply to industry-specific needs in clinical development.

EDP 406579
Kathleen Monroe, M.B.A.
2 meetings
Friday and Saturday, 8:30 am–5 pm
February 11 and 12
San Francisco: Downtown Center • $1,150

UC Berkeley Extension’s Professional Program in Project Management for Biopharmaceuticals teaches biopharmaceutical-specific project management processes and offers exposure to the latest professional trends in the pharmaceutical, biotechnology, medical device, and diagnostics industries. Use your existing skills and experience to advance or shift your career in this booming field.
Applying the Principles of Project Management in Life-Cycle Management for Biopharmaceuticals
X484.3 • 1 semester unit in Business Administration
15 pdu: PMI provider 1173
A requirement in the Professional Program in Project Management for Biopharmaceuticals
Learn to use the tools and techniques of project management as they apply to industry-specific needs in life-cycle management. The course covers scope management, time management, successful commercialization, cost, procurement, and risk management. Learn through lectures, case studies, problem sets, and class discussions.
EDP 406561
Yong Zhu, Ph.D.
2 meetings
Friday and Saturday, 8:30 am–5 pm
March 18 and 19
San Francisco: Downtown Center • $1,150

Best Practices Approaches in Project Management for Biopharmaceuticals, Medical Devices, and Vaccines
X484.6 • 1 semester unit in Business Administration
15 pdu: PMI provider 1173
A requirement in the Professional Program in Project Management for Biopharmaceuticals
This course introduces biopharmaceutical professionals like you to the current best practices of project management in the areas of biopharmaceuticals, medical devices, vaccines, and blood testing. Learn through lectures, case studies, problem sets, class discussions, and student projects.
Prerequisites: See Web.
EDP 406587
Elie Asmar, M.S.E., PMP, CKM,
Extension Honored Instructor
2 meetings
Saturdays, 8:30 am–5 pm
May 7 and May 21
Belmont: Belmont Center • $1,150

NEW THIS TERM
Best Practices in Project Management of CMC Planning
X475.3 • 1 semester unit in Business Administration
Learn the current best practices of project management tools and techniques in the pharmaceuticals, medical devices, and biologics targeted to Chemistry, Manufacturing, and Controls (CMC) planning and implementation.
Prerequisites: One year of experience in drug development and project planning, or completion of the following courses: Bioscience Essentials for Industry Professionals, The Drug Development Process, and Project Planning and Control X471.9
EDP 406595
Frederic Ivchenko, M.B.A.
2 meetings
Friday and Saturday, 8:30 am–5 pm
May 13 and 14
San Francisco: Downtown Center • $1,150

Certificate Program in Project Management
Acquire the skills you need to complete high-quality projects on task, on time, and within budget. Most Extension project management courses apply toward professional development units (PDUs) recognized by the Project Management Institute PMI®.
See p. 87 for complete certificate details.
MATHEMATICS AND STATISTICS

Mathematics and Statistics

COURSE INFORMATION

(510) 642-1061
mathstat@unex.berkeley.edu
extension.berkeley.edu/subject/math.html

ONLINE COURSE INFORMATION

(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Mathematics

Mathematics Refresher

2.4 ceu

Brush up on essential math skills, including selected topics in algebra, geometry, trigonometry, probability, and statistics. Note: This course does not address test-taking strategies for specific tests, but rather covers the mathematics skills necessary for you to succeed on the exams.

EDP 406231
Dieter Jurkat, M.S., Extension Honored Instructor
4 meetings
Saturdays, 9 am–4 pm
January 22–February 12
San Francisco: Downtown Center • $335

Satisfy Your M.B.A.
Prerequisites in Mathematics and Statistics

Let UC Berkeley Extension help you meet the math and statistics requirements for the Haas School of Business Evening and Weekend M.B.A. Program. For the math prerequisite, choose one of the following courses in either self-paced or classroom format:

- Precalculus
- Analytic Geometry and Calculus
- Calculus

The statistics prerequisite can be satisfied by taking Statistics XB2 in the classroom. For more information about the Haas School of Business Evening and Weekend M.B.A. Program, visit www.haas.berkeley.edu. For other institutions, inquire directly with individual admissions offices to determine whether these courses meet their requirements.

Analytic Geometry and Calculus-A

XB16A • 3 semester units in Mathematics

Approved as a prerequisite to the Haas School of Business Evening and Weekend M.B.A. Program. Important: Special academic policies apply to XB courses. See p. 238.

Review the function concept and basic graphing techniques for simple functions in this introductory course in calculus. Study the limit concept and continuity, as well as the derivative and its application to optimization problems, related rates, and curve sketching. Study the basic properties of logarithms and exponents, and get an introduction to the logarithmic and exponential functions and their derivatives, as well as an introduction to integration. Examine the development of calculus concepts and their applications to problems in business and biological sciences.

Prerequisites: Three years of high school math, including trigonometry. Recent coursework in mathematics is strongly recommended.

EDP 406249
Dieter Jurkat, M.S., Extension Honored Instructor
12 meetings
Thursdays, 6–10 pm
January 13–March 10 (also Sundays, January 23, February 13, and March 6; 9 am–12 pm)
San Francisco: Art and Design Center • $625

Calculus X1A

X1A • 4 semester units in Mathematics

Approved as a prerequisite to the Haas School of Business Evening and Weekend M.B.A. Program

In this introduction to differential and integral calculus, examine the key concepts of limit, derivative, and continuity, as well as the main applications of derivatives in graphing functions and optimizing functions. Then explore the fundamental theorem of calculus, which leads to the concept of integration and one of its main applications in calculating volumes through solids of revolution.

Prerequisite: Three-and-one-half years of high school mathematics, including trigonometry and analytic geometry.

Sec. 1 EDP 846147
Makan Rokni, Ph.D.
January 18–April 12
Online • $790

Sec. 2 EDP 867820
Merlin Miller, M.A.
Enroll anytime
Online, proctored final exam • $785

Sec. 3 EDP 897751
Makan Rokni, Ph.D.
Enroll anytime
Online • $785

Calculus X1B

X1B • 4 semester units in Mathematics

This continuation of Calculus X1A includes techniques and applications of integration, infinite sequences and series, first-order ordinary differential equations, exact equations, second-order ordinary differential equations, oscillation and damping, and series solutions of ordinary differential equations.

Prerequisite: Calculus X1A or equivalent

Sec. 1 EDP 846139
Makan Rokni, Ph.D.
January 18–April 12
Online • $790

Sec. 2 EDP 867838
Merlin Miller, M.A.
Enroll anytime
Online, proctored final exam • $785

Sec. 3 EDP 897769
Makan Rokni, Ph.D.
Enroll anytime
Online • $785

Precalculus

X9 • 2 semester units in Mathematics

Gain exposure to concepts in basic and advanced algebra and some trigonometry. Topics such as logarithms, solving or graphing linear equations, and factoring a polynomial should be familiar to some students. However, this class goes into these topics at a more advanced level than a beginning or intermediate algebra class does. You gain a good foundation for study in future calculus classes. Note: An integral component of this course is the interactive website MyMathLab. For complete system requirements, go to www.mymathlab.com/system.html.

Prerequisites: Two years of high school algebra, or the equivalent of a beginning and an intermediate algebra class, and one year of high school geometry or its equivalent

EDP 877605
Flor Feldman, M.Sc.
Enroll anytime
Online, proctored final exam • $720

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Statistics

Introduction to Statistics
XB2 • XBW2 (online sections; formerly XB2)
4 semester units in Statistics
Approved as a prerequisite to the Haas School of Business Evening and Weekend M.B.A. Program.
Important: Special academic policies apply to XB and XBW courses. See p. 238.

Learn basic concepts of probability and statistical inference, focusing on an intuitive approach to understanding concepts and methodologies. Get an introduction to statistical and critical thinking, including descriptive statistics, probability, sampling distributions, interval estimation, hypothesis testing, and regression. The online course is the recipient of the Helen Williams Award for Excellence in Collegiate Independent Study from the American Association for Collegiate Independent Study (AACIS).

Prerequisites: Two years of high school algebra. A recent course in college algebra is recommended.

Sec. 1 EDP 406256
Dieter Jurkat, M.S., Extension Honored Instructor
15 meetings
Tuesdays, 6–10 pm
January 11–March 22 (also Sundays, January 30, February 27, and March 13 and 20, 9 am–1 pm)
San Francisco: Downtown Center • $695

Sec. 2 EDP 416024
Tony Thrall, Ph.D.
19 meetings
Thursdays, 6–9:30 pm
January 20–April 28 (also Saturdays, February 5 and 19 and March 5 and 19, 9:30 am–12:15 pm)
Belmont: Belmont Center • $695

Sec. 3 EDP 416057
Michael Regan Quigley, Ph.D.
17 meetings
Saturdays, 10 am–1:30 pm
January 22–February 12 (also Wednesdays, January 26, February 2 and 5, and April 13, 6:30–10 pm; Saturdays, February 26, March 26, and April 30, 10 am–2 pm; and Saturdays, March 5, 12, and 19, April 2, 9, and 23, 10 am–1:30 pm)
Saturday meetings on Berkeley campus: See Web for updates; Wednesday meetings on Berkeley Campus: 166 Barrows Hall • $675

Sec. 4 EDP 897892
G. James Pan, Ph.D.
Enroll anytime
Online, proctored final exam • $785

Sec. 5 EDP 897900
Dieter Jurkat, M.S., Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $785

Sec. 6 EDP 897884
Makan Rokni, Ph.D.
Enroll anytime
Online, proctored final exam • $785

Self-Paced Courses in Mathematics

The content of these courses is identical to that of our traditional courses except in the method of instruction. There are no formal lectures. Rather, you cover the material at your own pace, using a series of study guides. An instructor is available for individual instruction and to administer exams. Attend as many of the class meetings as you need. This is not an online or correspondence course.

Three or more semester units in any self-paced math course, excluding Algebra and Trigonometry XP-S, satisfy the math prerequisite for the Haas School of Business Evening and Weekend M.B.A. Program.

Algebra and Trigonometry XP-S
1–2 semester units in Mathematics
Prerequisite: Two years of high school math or equivalent
EDP 406389

Precalculus X32-S
1–4 semester units in Mathematics
Prerequisite: Three years of high school math with one year of algebra
EDP 406439

Analytic Geometry and Calculus X16A-S
1–3 semester units in Mathematics
Prerequisite: Three years of high school math, including trigonometry
EDP 406413

Analytic Geometry and Calculus X16B-S
1–3 semester units in Mathematics
Prerequisite: Analytic Geometry and Calculus X16A-S or XB16A or equivalent
EDP 406470

Calculus X1A-S
1–4 semester units in Mathematics
Prerequisite: Three-and-a-half years of high school math, including trigonometry and analytic geometry, or precalculus
EDP 406421

Calculus X1B-S
1–4 semester units in Mathematics
Prerequisite: Calculus X1A-S or XB16A or equivalent
EDP 406488

Instructor: Flor Feldman, M.Sc.
13 meetings
Wednesdays, 6:30–10 pm
January 19–April 13 (also Saturday, March 12, 9:30 am–1 pm; no meeting April 6)
Berkeley Campus: 2308 Tolman Hall • $675

For detailed information about the course structure and refund policy, call (510) 642-1061, visit extension.berkeley.edu/math/selfpaced.html, or e-mail mathstat@unex.berkeley.edu.
Elizabeth Dolge holds an A.B. in religious studies from Occidental College in Southern California and is a former sales executive for a San Francisco global software company. Switching professional gears, Dolge is combining her international work experience with her interest in sustainability—for a career she can feel passionate about.

A graduate of the Professional Program in Sustainability and Energy, Dolge is also completing the Professional Program in Leadership in Sustainability and Environmental Management.

“My experience thus far has been absolutely positive,” Dolge says. “I find it very satisfying to connect with other intelligent, like-minded individuals who are dedicated to making a positive change.”

UC Berkeley Extension’s Sustainability Studies courses and programs prepare students like Dolge for careers in the emerging green economy. “I recently had an abridged version of a final paper for my course on energy and climate change published by a nationally renowned website,” she says. “My expertise and increased confidence are essential to fulfilling my goal of creating a meaningful career for myself, leveraging my business development and relationship management background and applying knowledge acquired from UC Berkeley Extension’s Sustainability Studies programs.”
At UC Berkeley Extension, you can equip yourself with the tools and techniques of sustainable practice in a variety of educational disciplines, including design, engineering, and green chemistry.

Complete a program that focuses on a timely topic in sustainability, such as the sustainable design of the built environment, responsible business practices, clean energy, or sustainable transportation planning. Explore the current environmental regulations that affect your organization, or learn about the legal framework for environmental protection. You can lead the way in creating a more sustainable world, whether you work in the public, private, or nonprofit sector—or simply feel compelled to make a difference.

Get the education you need to maximize your career opportunities in today’s green economy.
Sustainable Design

COURSE INFORMATION

(415) 284-1041
designarts@unex.berkeley.edu
extension.berkeley.edu/subject/sustainable.html

ONLINE COURSE INFORMATION

(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Free Information Session: Professional Program in Sustainable Design

Find out how UC Berkeley Extension’s specialized program of study can help you advance or start your career in sustainable design. This no-obligation session also gives you an opportunity to meet students and teachers in the program. Prospective students can tour the Art and Design Center at Third and Mission streets to see where courses are held and view examples of work produced by current students. For program details, see p. 181 or visit extension.berkeley.edu/spos/sustain.html.

EDP 026617
1 meeting
Wednesday, 6:30–8 pm
January 5
San Francisco: Art and Design Center • FREE

EDP 026625
1 meeting
Monday, 6:30–8 pm
May 23
San Francisco: Art and Design Center • FREE

Principles of Sustainable Design

A requirement in the Professional Program in Sustainable Design

Examine the history and development of sustainability as a social goal, and explore its implications for the design of built environments. Study concepts such as permaculture, biophilia, localism, life-cycle analysis, biomimicry, natural capitalism, cradle-to-cradle production, unfolding wholeness, and ecological design. In addition to the latest tools, techniques, and materials, you explore government programs, legislation, industry regulations and codes, green certifications, LEED, and nonprofit organizations involved with sustainability.

Sec. 1 EDP 026187
Antonio Pares, B.Arch.
10 meetings
Tuesdays, 6:30–9:30 pm
January 11–March 15
San Francisco: Art and Design Center • $750

Sec. 2 EDP 846113
Jessica Carew Kraft, Ph.D.
Enroll anytime
Online • $799

Sustainable Building Materials

X411.1 • 1 semester unit in Architecture

A requirement in the Professional Program in Sustainable Design

This course presents a value system for selecting environmentally preferable products. You learn where to find green building materials and how to ensure the most nontoxic application. You learn about life-cycle analysis, cost, sourcing, energy efficiency, off-gassing, green specifications, value engineering, and third-party certifications. Class features include guest speakers, case studies, and field trips to local showrooms. You analyze award-winning environmental design and learn how to apply the triple-bottom-line approach to materials selection.

EDP 026278
Heather Gadonniex, B.A.
6 meetings
Wednesdays, 6:30–9:30 pm
February 9–March 16
San Francisco: Art and Design Center • $425

Practical Applications of Sustainable Design

X470.1 • 2 semester units in Architecture

A requirement in the Professional Program in Sustainable Design

Translate your knowledge of sustainable design concepts into practical, deployable, and tangible methods. Learn to take responsibility for your work by understanding the impact that your designs have on the environment and ways to control this impact. Through research of materials, systems, and construction methods, you explore the ways to design and build in an environmentally responsible manner. Using case studies, you look at how others are creating community, solving economic problems, and developing new solutions to design. Classes involve lectures, discussions, and student presentations exploring these ideas.

Sec. 1 EDP 026237
David Waldorf, M.A.
10 meetings
Wednesdays, 6:30–9:30 pm
March 23–May 25
San Francisco: Art and Design Center • $750

Sec. 2 EDP 846154
David Waldorf, M.A.
Enroll anytime
Online • $795
**Sustainable Project Development**  
X411.3 • 1 semester unit in Architecture  
An elective in the Professional Program in Sustainable Design  
Develop the tools to successfully manage a green building project. Examine project phases from conception to construction, and learn to understand how integrated design, trade collaboration, eco-charrettes, holistic thinking, and commissioning come into play. Guest speakers, case studies, and field trips illustrate the roles and responsibilities of all involved. Learn to apply eco-accounting concepts such as life-cycle analysis, embodied energy, triple bottom line, and rebate programs. Learn the ins and outs of third-party certifications, municipal and federal green building incentives, and how to achieve LEED and beyond.  
**EDP 026286**  
Amy Patel, M.Arch.  
6 meetings  
Mondays, 6:30–9:30 pm  
April 18–May 23  
San Francisco: Art and Design Center • $390

**Managing the LEED Documentation Process**  
X402.4 • 1 semester unit in Architecture  
This course gives you practical training on how to manage the LEED documentation process. LEED Online and other tools help to lead eco-charrettes, troubleshoot potential setbacks, and coordinate the responsibilities of each team member. The teaching method is interactive and includes group discussions, worksheets, research projects, and class presentations. You gain the practical skills needed to hit the ground running on a LEED project.  
**EDP 026294**  
Alex Spilger, B.S.  
6 meetings  
Mondays, 6:30–9:30 pm  
March 7–April 11  
San Francisco: Art and Design Center • $425

**Urban Dirt: Designing Sustainable Landscapes On-Structure**  
X411.6 • 2 semester units in Architecture  
An elective in the Professional Program in Sustainable Design  
Urban Dirt is an exploration into the design of urban landscapes on-structure, those built on an assemblage of constructed ground created by architectural and engineering systems such as roofs, roads, and bridges. Gain an awareness of how new ideas for a scarce and valuable resource can transform the urban landscape.  
**EDP 026302**  
Jesse Markman, M.L.A.  
10 meetings  
Fridays, 2–5 pm  
March 11–May 20 (no meeting March 25)  
San Francisco: Art and Design Center • $750

**NEW THIS TERM**  
**Biologics: Designing the Designer**  
X404.1 • 2 semester units in Architecture  
Learn to understand the relationship between sustainable systems and individuals. Examine and learn to use a variety of tools to practice and implement sustainable design principles on a personal level. Through these experiences, you learn to create more, consume less, and reduce unusable waste. Enrich your expertise in sustainability on both a personal and professional level.  
**EDP 026336**  
Eugene Tsui, Ph.D.  
10 meetings  
Thursdays, 6:30–9:30 pm  
March 24–May 26  
San Francisco: Art and Design Center • $750

**Ecology for Designers**  
X404.3 • 2 semester units in Architecture  
Get an introduction to the workings of land-based ecological systems. Gain a core understanding of the principles of ecology and learn to assess natural systems through class work and in-field studies. Focus on the applications of ecological analysis and how you can incorporate them into the planning and design of a more sustainable built environment.  
**EDP 026351**  
David Deppen, B.Arch., and Jennifer Berry, B.A.  
10 meetings  
Wednesdays, 6:30–9:30 pm  
March 23–May 25  
San Francisco: Art and Design Center • $750

**Ethno-Ecology and Architecture: Learning from Past Cultures**  
X404.2 • 2 semester units in Architecture  
Explore the architectural and functional objectives of ancient built environments, including the use of clothing, tools, machinery, building materials, diet, and functional relationships to the climate. Examine six major world cultures in each distinct climate: the Tuareg of the African Sahara, the Dogon of Mali, the Inuit of the Arctic, the Kogi of Colombia, the Mongolian of Mongolia, and the Navajo of the southwestern United States. Learn to understand patterns of cultural attitudes that have preserved the natural world, and learn strategies to apply these principles in the modern world.  
**EDP 026344**  
Eugene Tsui, Ph.D.  
10 meetings  
Mondays, 6:30–9:30 pm  
February 7–April 18 (no meeting February 21)  
San Francisco: Art and Design Center • $750

**NEW THIS TERM**  
**Professional Program in Sustainable Design**  
Sustainable design involves applying forms and patterns from nature to the creation of built environments and consumer products so that human activity sustains, and even regenerates, living systems without harm. Learning these ideas and applying the principles of biomimicry—copying nature’s efficiencies in manufacturing and design processes—enables you to create innovative solutions to current design challenges. With the yearlong Professional Program in Sustainable Design, you acquire the knowledge needed by architects, designers, builders, developers, project managers, and other decision makers to become leaders in sustainable development. Choose from one of three tracks—Architecture and Interiors, Urban Sustainability and Community Design, or Sustainable Site Design—to start making a difference. More information about each track is available online.

**Curriculum Requirements**  
The curriculum consists of 2 required courses and 4 sustainable design electives for a minimum of 8 semester units (120 hours of instruction).

**Required Courses**  
• Principles of Sustainable Design X400.6  
  (offered spring and fall terms and online)  
• Practical Applications of Sustainable Design X470.1  
  (offered spring and fall terms and online)

**Electives**  
For a list of available electives this term, see extension.berkeley.edu/spos/sustain.html.

**Learn More and View the Brochure**  
extension.berkeley.edu/spos/sustain.html  
(415) 284-1041  
designarts@ext.berkeley.edu

**Enroll using EDP 022418**
Green Chemistry

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/subject/chemistry.html

Free Information Session:
Certificate Program in the Essentials of Green Chemistry

Sustainability issues are increasingly important to both individuals and industry. Specifically, public concern about the safety of chemicals presents businesses with new challenges for growth and competitive advantage. Learn about courses and programs that can educate and prepare you to seize these emerging opportunities. For more information see p. 183 or visit extension.berkeley.edu/cert/greenchem.html.

EDP 426304
1 meeting
Wednesday, 7–8 pm
January 19
Berkeley: Golden Bear Center • FREE

EDP 426296
1 meeting
Saturday, 11 am–12 pm
January 22
Berkeley: Golden Bear Center • FREE

Principles of Green Chemistry
X413 • 2 semester units in Chemistry

Learn the core principles of green chemistry, and connect your knowledge of green chemistry to your own experiences through real-world examples and projects. Challenges to the health of the environment abound, including pollution, climate change, and the overuse of natural resources. Chemistry, the study of matter and how it changes, can greatly influence human health and the health of the environment. Green chemistry unleashes the creativity of scientists and engineers in designing and discovering the next generation of chemicals and materials so that they provide increased performance while protecting and enhancing human health and the environment.

Sec. 2 EDP 846246
Mimosa Burr, M.S.
Enroll anytime
Online • $575

Current Topics in Green Chemistry
X414 • 3 semester units in Chemistry

Whether you are a chemical research professional or wish to enter the field, this course provides a look at the current research topics and activities in green chemistry. Using the 12 Principles of Green Chemistry (first outlined in Green Chemistry: Theory and Practice by P.T. Anastas and J.C. Warner) as a foundation, you review requirements, trends, and issues in regulatory compliance; toxicology; synthetic green chemistry methods; atmospheric chemistry and green house gases; climate change; waste management; biofuels; renewable feed stocks; and commercial green products.

EDP 426262
Peter M. Stonebraker, Ph.D.
15 meetings
Tuesdays, 6:30–9:30 pm
January 18–May 3 (no meeting March 22)
Berkeley Campus: 2326 Tolman Hall • $820

Toxicology and Risk Assessment
X403.2 • 2 semester units in Public Health

Examine the toxic effects that hazardous chemicals have on biological systems including dose-response curves, mechanisms of toxicity, carcinogenesis, and reproductive hazards. Learn to estimate the risks associated with potential exposure to hazardous chemicals and gain an understanding of how risk assessment fits into the risk management processes. This class is designed for environmental managers, sustainability consultants, health professionals, product designers, engineers, chemists, biologists, product managers, materials scientists, and other professionals who are interested in learning and applying the principles of toxicology and risk assessment in their respective fields of work.

EDP 426254
Zachary Wong, Ph.D., Extension Honored Instructor
6 meetings
Tuesdays, 6:30–9:45 pm
March 1–April 5 (also Saturday, April 2, 9 am–5:30 pm; no meeting March 22)
Berkeley Campus: 107 Genetics & Plant Biology Building • $545

Green Chemistry and Chemical Policy
X400.8 • 2 semester units in Public Health

Learn the current and historical policy context of industrial chemical regulation, as well as the relevance of the concepts and application of green chemistry and green engineering in moving humans collectively toward a more sustainable economy and society. You also study the weaknesses of historical approaches to chemicals management in protecting public and environmental health, as well as the key challenges that remain in implementing comprehensive chemicals policy reform.

EDP 846253
Ann Blake, Ph.D.
Enroll anytime
Online • $575

Advancing the Green Economy: Achieving Impact from the Office to the Ecosystem

Join scientist and sustainability expert Jonathan L. Gelbard, Ph.D., as he explores the connections between choices made in the office and the health of ecosystems and people. Hear stories about how businesses are learning to boost profits and productivity by using and selling green products. Gain valuable tips on how to identify the products, partners, and certifications that can help your company achieve measurable positive impacts and advance the green economy.

Jonathan L. Gelbard, Ph.D., principal at Conservation Value, Inc., is a researcher, writer, speaker, and educator. He has taught at the World Wildlife Fund’s Climate Camp workshops; appeared in the 2009 urban forest documentary, Dig It; and served as an educational producer for some of America’s largest green music festivals.

EDP 426320
1 meeting
Thursday, 6:30–8 pm
March 17
Berkeley Campus: Alumni House • FREE

SUSTAINABILITY STUDIES

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Certificate Program in the Essentials of Green Chemistry

Green chemistry enables scientists and engineers to design chemicals and materials with minimal use and generation of hazardous substances. Growing public concern about product safety, along with new chemicals policies in the United States and the European Union, poses an imperative for decision makers in business, government, and nongovernmental organizations (NGOs) to understand the business strategy and market drivers for green chemistry. In addition to new opportunities for growth and competitive advantage, businesses have new positions in green chemistry opening at points throughout the supply chain. Developed in association with the UC Berkeley School of Public Health, the Certificate Program in the Essentials of Green Chemistry trains professionals in chemistry, engineering, public policy, toxicology, and business so that they can work collaboratively with green chemistry colleagues in the United States and beyond. No matter what your schedule, Extension has flexible courses—including online, weekend, and evening options—to accommodate your work-life demands.

Curriculum Requirements
The curriculum consists of 5 required courses (10 semester units) and a varied number of elective courses for a minimum of 14 semester units (210 hours of instruction). All students are required to take Principles of Green Chemistry X413, then any four of the five remaining required courses.

Required Courses
- Principles of Green Chemistry X413 (offered spring and fall terms)
- Decision Making in Comparative Risk Assessment X473 (offered future term)
- Green Chemistry and Chemical Policy X400.8 (offered summer and fall terms and online)
- Alternatives Assessment: Chemicals, Materials, Products, and Processes X415 (offered future term)
- Business and Financial Planning for Green Chemistry Innovation X413.8 (offered fall term)
- Current Topics in Green Chemistry X414 (offered spring and fall terms)

Electives Available This Term
Electives are available in both Sustainability Studies and Sciences, Biotechnology and Mathematics. See the Web for a full list.
- Developmental Biology X138
- Greening Your Supply Chain—Life-Cycle Assessment Tools X434
- Introduction to Bioethics X400
- Molecular Endocrinology X125
- Sustainability Leadership: Strategies and Paradigms X419
- The Biology of Human Cancer X124

Learn More and View the Flyer
extension.berkeley.edu/cert/greenchem.html
science@unex.berkeley.edu
(510) 642-1062
Enroll using EDP 402421
Green Building

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/sustainability

Introduction to Concepts of Green Building
X495 • 1 semester unit in Civil and Environmental Engineering
(formerly Fundamentals of Green Building with LEED)
A requirement in the Professional Program in Solar Energy and Green Building
Whether you are a design, construction, or real estate professional; a building owner; or someone who wants to develop your knowledge, learn the fundamental concepts of green building. Learn some of the key concepts for the LEED Green Associate credential from the Green Building Certification Institute (GBCI). Explore case studies of LEED-certified building projects, concepts of integrated design, third-party verification, and the LEED administration process.
EDP 326348
Kelly Gearhart, B.A.
5 meetings
Wednesdays, 6:30–9:30 pm
January 5–February 2
San Francisco: Art and Design Center $550

Application of Green Building Concepts
X495.1 • 1 semester unit in Civil and Environmental Engineering
A requirement in the Professional Program in Solar Energy and Green Building
If you are a commercial green professional, such as a LEED Green Associate, who is pursuing further professional accreditation or advanced knowledge in green building, this course covers the application of fundamental green building concepts. Gain an overview of LEED and the exam content for the LEED AP Building Design + Construction (BD+C) credential from the Green Building Certification Institute (GBCI). You also review application of LEED concepts, technical components and calculations of LEED credits, case studies, and the administration process.
EDP 336370
Kelly Gearhart, B.A.
5 meetings
Tuesdays, 6:30–9:30 pm
March 15–April 12
Berkeley Campus: 151 Barrows Hall $550

Implementing LEED Strategies
X496 • 1 semester unit in Civil and Environmental Engineering
An elective in the Certificate Program in Construction Management, in the Certificate Program in HVAC, and in the Professional Program in Solar Energy and Green Building
If you are a commercial-sector green professional, such as a LEED Accredited Professional, seeking to advance your skills, this course shows you how to manage the LEED project administration process through hands-on education. Gain proficiency with LEED Online, project checklists, and submittal templates and learn from project challenges and best practices. Examine technical contents of LEED programs in Building Design + Construction (BD+C), Existing Buildings: Operations and Maintenance (LEED-EB O&M), and Interior Design + Construction (ID+C). Learn from real-world case studies, and take a mock building to LEED Platinum.
EDP 326322
Kelly Gearhart, B.A.
5 meetings
Wednesdays, 6:30–9:30 pm
February 9–March 9
San Francisco: Downtown Center $615

LEED for Homes: Integrated Project Planning
X498.1 • 2 semester units in Civil and Environmental Engineering
An elective in the Certificate Program in Construction Management and in the Professional Program in Solar Energy and Green Building
Learn state-of-the-art residential green building and LEED for Homes best practices, as well as hands-on project-planning methodologies. Practice applying principles of the integrated design process and project management (ID/PM) in the context of a green building project. Equip yourself with professional knowledge and leadership skills to effectively support LEED for Homes projects’ best practices.
EDP 336115
Pepper Smith, M.B.A.
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
Berkeley: Golden Bear Center $757

NEW THIS TERM
Understanding the LEED Credential Maintenance Program (CMP)
0.3 ceu
Learn the process for maintaining your LEED credential in this concise class. Find out what the requirements are for the Green Building Certification Institute (GBCI) LEED Professional Credential Maintenance Program (CMP), the delivery methods available, and the options for recognized continuing education in the rapidly developing field of sustainability. Explore the most current GBCI CMP guidelines, and learn important terminology. Create your own personalized strategy for maintaining your LEED credential, and learn how to access, complete, record, and report your LEED continuing education requirements.
Sec. 1 EDP 326421
Lance Crannell, M.Arch., B.S., AIA, LEED AP
1 meeting
Thursday, 6:30–9:30 pm
March 17
San Francisco: Downtown Center $155
Sec. 2 EDP 326439
Lance Crannell, M.Arch., B.S., AIA, LEED AP
1 meeting
Wednesday, 6:30–9:30 pm
May 18
Belmont: Belmont Center $155

Building Commissioning for LEED
X493 • 2 semester units in Civil and Environmental Engineering
30 GBCI CE Hours
An elective in the Certificate Program in HVAC and in the Professional Program in Solar Energy and Green Building. This course is USGBC-approved for continuing education credit.
As demand for energy efficiency and LEED-certified building increases, knowledge of professional building commissioning becomes critical, as all buildings must undergo commissioning before they can obtain LEED certification. Learn in detail the full building-commissioning process through a practical, hands-on approach. You systematically develop a complete set of documents and deliverables that meets the requirements of a professional-grade commissioning report. The emphasis is on learning by doing, including measurement and verification (M&V) performed on actual building systems.
EDP 326397
Douglas Chamberlin, M.A.
10 meetings
Tuesdays, 6:30–9:30 pm
February 15–April 19
Berkeley Campus: 185 Barrows Hall $795
Applying LEED Building Operation and Maintenance

X401.2 • 1 semester unit in Civil and Environmental Engineering
(formerly Sustainable Building Operation and Maintenance Practice and LEED)

An elective in the Professional Program in Solar Energy and Green Building

Learn to apply sustainability principles to building operations. Gain practical knowledge on the methodology of the LEED Green Rating System for Existing Buildings: Operation and Maintenance (LEED EB: O+M). Examine best practices and lessons learned from industry practitioners who share their expertise through hands-on demonstrations.

EDP 336081
Rebecca Anderson, M.E.H.S.
5 meetings
Mondays, 6:30–9:30 pm
February 7–March 14 (no meeting February 21)
Berkeley: Golden Bear Center • $575

NEW THIS TERM

California Green Building (CALGreen) Code: Overview

X499 • 1 semester unit in Civil and Environmental Engineering

Learn about the California Green Building Standards Code (CALGreen), which is Part 11 of Title 24 of the California Code of Regulations, and find out how to apply it to new building design and construction. Understand how the CALGreen code requires reduction in construction waste, makes buildings more energy efficient, and reduces environmental impacts throughout the construction life cycle. Explore the mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools, and hospitals) throughout California.

EDP 336263
Lance Crannell, M.Arch., B.S., AIA, LEED AP, and Pepper Smith, M.B.A.
2 meetings
Saturdays, 9 am–4:30 pm
April 9 and April 16
San Francisco: Downtown Center • $350

Solar

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/sustainability

A Practical Guide to the Solar Industry

X411 • 2 semester units in Natural Resources
(formerly Solar Industry Orientation)

An elective in the Professional Program in Solar Energy and Green Building

Gain a comprehensive understanding of the solar technology industry. Review the basics of solar, electric, and thermal technologies; industry economics and dynamics; policy drivers; utility structure; and careers and business opportunities. Focusing on the California market, you learn about various factors that shape how, where, and how fast solar technology is being deployed and how to pursue a career in the solar industry. Investigate barriers and enablers in meeting California’s solar energy goals, and examine utility industry structure and regulation, as well as the integrated relationship between energy efficiency and solar technology.

EDP 326306
Liz Merry, M.B.A.
4 meetings
Saturdays, 9 am–5 pm
February 12–March 12 (no meeting February 19)
Berkeley Campus: See Web for updates • $550

Investment-Grade Solar System Feasibility Studies

X430 • 2 semester units in Natural Resources
30 GBCI CE Hours

An elective in the Professional Program in Solar Energy and Green Building. This course is USGBC-approved for continuing education credit.

Learn to understand, analyze, plan, and produce an investment-grade solar feasibility report, a tool that evaluates and justifies commercial photovoltaic projects. This advanced course includes capitalization, production, site selection, host requirements, and permitting issues.

EDP 326355
Ted Horton, B.M.E.
7 meetings
Tuesdays, 6:30–9:30 pm
April 5–May 3 (also Saturdays, April 2 and May 14, 9 am–5:30 pm)
San Francisco: Downtown Center • $545

Professional Program in Solar Energy and Green Building

With courses approved by the U.S. Green Building Council, you can acquire the foundational knowledge identified by top professional organizations in the solar and green building industries. In addition to an introduction to the solar industry, learn the latest on green building design and construction and LEED® Rating Systems.

Curriculum Requirements

The program consists of 2 required courses and 4 electives (3 semester units in solar energy and 2 semester units in green building) for a total of 8 semester units (120 hours of instruction).

Required Courses

• Introduction to Photovoltaic Systems X440 (offered every term)
• Introduction to Concepts of Green Building X495 (offered every term) or Application of Green Building Concepts X495.1 (offered every term)

Solar Energy Electives Available This Term

• Advanced Solar PV System Design and Project Management X446
• A Practical Guide to the Solar Industry X411
• Basics of Photovoltaic Devices X416
• Investment-Grade Solar System Feasibility Studies X430
• Solar Energy: Understanding Policy-Driven Markets X432

Green Building and Other Electives Available This Term

• Applying LEED Building Operation and Maintenance X401.2
• Building Commissioning for LEED X493.1
• Climate Change and Green Building: The Business Case X410.3
• Implementing LEED Strategies X496
• LEED for Homes: Integrated Project Planning X498.1

Learn More and View the Brochure
extension.berkeley.edu/spos/solar.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302977
Professional Program in Corporate Social Responsibility Reporting

Ensure your organization considers sustainability in its decision-making processes, and learn how to effectively articulate socially responsible practices to key stakeholders. With the skills to improve any organization’s sustainable business practices, green purchasing, and supply chain management—along with knowledge of best practices and strategies—you’re ready to fill the business world’s growing need for managers who understand and can report on the value of corporate social responsibility and sustainable practices.

No matter if you’re a business manager in the public or private sector or a corporate manager, planner, consultant, business owner, or sustainability manager, you gain an understanding of sustainability management principles and the impact of climate change law on businesses and governments. With the ability to make assessments, compile professional reports, and take on a leadership role in sustainability, you’re ready to change or advance your career in the evolving green economy.

Curriculum Requirements
The program consists of 2 courses (2 semester units) and 3 one-day workshops for a total of 2 semester units and 2.1 ceu (51 hours of instruction).

Required Courses
- Greening Your Supply Chain—Life-Cycle Assessment Tools X434 (offered spring and summer terms)
- Introduction to Sustainability Management (offered fall and summer terms)
- Corporate Social Responsibility Reporting (offered spring and summer terms)
- Climate Change and Law AB 32: What It Means for You (offered summer and fall terms)
- Sustainability Leadership: Strategies and Paradigms X419 (offered every term)

Learn More and View the Brochure
extension.berkeley.edu/spos/csr.html
(s10) 642-4151
course@unex.berkeley.edu

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU

Solar Energy: Understanding Policy-Driven Markets
X432 • 1 semester unit in Natural Resources
An elective in the Professional Program in Solar Energy and Green Building
Get an overview of major solar markets and key solar policy drivers in the United States, real-world case studies of successful solar programs, and the policy and advocacy processes behind them. Leave the class understanding critical drivers of solar markets and how to effect changes. You will be able to evaluate solar markets, promote adoption, and advance business opportunities.
EDP 326850
Claudia Eyzaguirre, B.S.
5 meetings
Tuesdays, 6:30–9:30 pm
May 3–May 31
San Francisco: Art and Design Center • $395

Introduction to Photovoltaic Systems
X440 • 2 semester units in Natural Resources
A requirement in the Professional Program in Solar Energy and Green Building; an elective in the Certificate Program in Construction Management
Study the basics of photovoltaic (PV) technology and systems. Acquire fundamental technical knowledge of solar electricity necessary for understanding PV technology.
Computer and online research skills expected; basic knowledge of electricity, calculus, and geometry recommended but not required
EDP 326900
Ridha Hamidi, Ph.D.
4 meetings
Saturdays, 9 am–5:30 pm
January 8–February 5 (no meeting January 15)
San Francisco: Art and Design Center • $395

Basics of Photovoltaic Devices
X416 • 2 semester units in Electrical Engineering
An elective in the Professional Program in Solar Energy and Green Building
Learn basic physics and operational and design principles of photovoltaic (PV) devices such as solar cells (SCs) and solar modules (SMs). Learn how the core physical phenomena in various solid-state materials can be used to design and build PV cells and panels. You study essentials of both bulk and thin film PV devices including Si-based monocrystalline, polycrystalline, and microcrystalline modifications; thin Si and a-SiH amorphous cells; CdTe and Copper indium gallium (di) selenide (CIGS) options; and III-V multijunction SCs.
EDP 336289
Boris Gilman, Ph.D.
10 meetings
Thursdays, 6–9 pm
March 31–June 2
Belmont: Belmont Center • $580

Essentials of Solid-State Optoelectronic Devices
X417 • 2 semester units in Electrical Engineering
Learn the basic physics and operational and design principles of the most popular modern optoelectronic (OE) devices. Examine how the basic physical phenomena in solid-state materials can be used to build a variety of unique device functions. You also learn essentials of light-emitting diodes (LED), semiconductor lasers, optical switches, light modulators, and other WDM components. You also learn key concepts underlying photovoltaic (PV) device operations along with the practical information about optical networks, component design principles, processing, and testing.
EDP 336271
Boris Gilman, Ph.D.
10 meetings
Tuesdays, 6–9 pm
March 22–May 24
Belmont: Belmont Center • $645

Advanced Solar PV System Design and Project Management
X446 • 3 semester units in Natural Resources
45 pdu: PMI provider 1173
An elective in the Professional Program in Solar Energy and Green Building
Learn to manage residential-, commercial-, and utility-scale solar energy projects, and acquire project-management-level proficiency in identifying, analyzing, and managing technical, economic, and planning aspects of project implementation, including permitting and code compliance issues. Through hands-on applications, case studies, practical examples, and lectures by experienced professionals, you learn how to overcome barriers in managing solar energy system projects.
EDP 336750
Ridha Hamidi, Ph.D.
15 meetings
Mondays, 6:30–9:30 pm
January 24–May 23 (no meeting February 21, March 7, and April 11)
Belmont: Belmont Center • $695

SUSTAINABILITY STUDIES
Sustainability Management

**Course Information**

(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/subject/sustainmgmt.html

**Free Information Session:** Professional Programs in Leadership in Sustainability and Environmental Management, Corporate Social Responsibility Reporting, and Responsible Global Change Management

Find out how UC Berkeley Extension’s specialized programs of study can help you advance or start your career in sustainability. For details on the Professional Program in Leadership in Sustainability and Environmental Management, see this page or visit extension.berkeley.edu/spos/sustainmgmt.html. For details on the Professional Program in Corporate Social Responsibility Reporting, see p. 186 or visit extension.berkeley.edu/spos/csr.html. For details on the Professional Program in Responsible Global Change Management, see p. 190 or visit extension.berkeley.edu/spos/globalchange.html.

**EDP 336537**

1 meeting
Monday, 5:30–7:30 pm
January 31
Berkeley: Golden Bear Center • FREE

**EDP 326399**

1 meeting
Tuesday, 5:30–7 pm
May 24
Berkeley: Golden Bear Center • FREE

**Overcoming Barriers to Implementing Sustainable Change**

**X417 • 1 semester unit in Natural Resources**

A requirement in the Professional Program in Responsible Global Change Management; an elective in the Professional Program in Leadership in Sustainability and Environmental Management.

The day-to-day work of implementing organizational change for improved sustainability at the global or local level is challenging and complex. The implementation techniques presented in this course enable sustainability coordinators, green-team staffers, and environmental health and safety staff to overcome psychological, technical, and financial barriers. Topics include modern sustainability principles and models, community-based social marketing, technical feasibility studies, life-cycle cost-benefit analyses, and the role of persuasive narratives to quickly generate support for green projects.

**EDP 326835**

Justine Burt, M.S.
5 meetings
Thursday, 6:30–9:30 pm
March 3–March 31
Berkeley: Golden Bear Center • $395

**Corporate Social Responsibility Reporting**

0.7 ceu

A requirement in the Professional Program in Corporate Social Responsibility Reporting.

Study the principles and methodology of corporate social responsibility (CSR) reporting according to the Global Reporting Initiative (GRI) standards. Gain insight to key benefits of sustainable corporate citizenship practices, and learn to articulate and communicate them professionally to stakeholders. Examine real-life case studies and sample reports, and practice hands-on exercises in evaluating quality of report content. Learn the systematic report development process, which includes researching, preparing, connecting, defining, monitoring, and reporting on sustainable initiatives information.

**EDP 326399**

Gary Lucks, J.D., CPEA
1 meeting
Friday, 9 am–5 pm
February 18
San Francisco: Downtown Center • $350

**Professional Program in Leadership in Sustainability and Environmental Management**

Take advantage of new opportunities in the emerging global green economy with a structured selection of courses on sustainability leadership and change management, environmental law and policy, compliance management systems, and climate change risk-mitigation strategies. In addition to learning how sustainability practices can be implemented in cost-effective ways in public and private sectors worldwide, you acquire a set of management tools based on sustainability leadership principles. Upon successful completion of the program, you are proficient in the language of the industry and able to understand, research, analyze, and articulate the industry’s viewpoints in a professional manner. You are also prepared to further develop advanced expertise and responsibility within the context of sustainability principles.

**Curriculum Requirements**

The program consists of 4 required courses and 1 elective for a total of 8 semester units (120 hours of instruction).

**Required Courses**

- Environmental Law and Regulation X440 (offered spring term)
- Introduction to Climate Change, Environment, and Sustainability X444 (offered spring and summer terms)
- Environmental Management Systems and ISO 14000 X422 (offered spring and fall terms)
- Sustainability Leadership: Strategies and Paradigms X419 (offered every term)

**Electives Available This Term**

- Fundamentals of Environmental Protection and Regulatory Compliance X445
- Overcoming Barriers to Implementing Sustainable Change X417

**Learn More and View the Brochure**

extension.berkeley.edu/spos/sustainmgmt.html
(510) 642-4151
course@unex.berkeley.edu

**Enroll using EDP 302985**
SUSTAINABILITY STUDIES

Greening Your Supply Chain: Life-Cycle Assessment Tools

X434 • 1 semester unit in Civil and Environmental Engineering


Green supply chains are an important part of sustainable business practice. If you are an environmental or business manager or someone who wants to develop knowledge and expertise in sustainable business practices, this course teaches you about green product and service supply chains and compliance requirements. Understand how products, businesses, and services are measured against green standards. Examine the implications of Environmentally Preferable Purchasing, supply chain management, and life-cycle analysis. Understand decision tools for managing supply chains and maximizing value while minimizing environmental impact.

EDP 336123
Susan Sakaki, M.P.A., CHMM, and Roberto Piccioni, M.S.

2 meetings
Saturdays, 9 am–5 pm
February 5 and February 12

Berkeley Campus: See Web for updates • $475

Principles of Green Purchasing and Sustainability

X448 • 2 semester units in Natural Resources

A good understanding of the principles of green purchasing is important to limit the impact that businesses, governments, and corporations have on natural resources, ecosystems, and human well-being. Gain an overview of the environmental information underlying sustainable purchasing. Learn how to understand, and evaluate the information you need for green procurement. Evaluate business cases that illustrate how companies can boost profits and productivity by using and selling sustainable products.

EDP 326298
Jonathan Gelbard, Ph.D.

10 meetings
Tuesdays, 6:30–9:30 pm
January 18–March 22

San Francisco: Art and Design Center • $495

NEW THIS TERM
Hot Topics in Green Policy and Sustainability Programs

X459 • 2 semester units in Natural Resources

Learn about current topics in green policy and government-led sustainability initiatives driving the green economy. Study local sustainability initiatives such as the Oakland Green Job Corps, the Property Assessed Clean Energy (PACE) Program for solar and renewable technology, and Sonoma County’s Energy Independence program. Examine the economic impact of recent government policies on green businesses, and explore case studies to understand how policies are implemented. Find out about local and national current events in terms of sustainability, including the stimulus plan and the federal cap-and-trade proposals.

EDP 336214
Jared Asch, M.A., and Genevieve Nowicki

10 meetings
Mondays, 6:30–9:30 pm
January 24–April 4 (no meeting February 21)
San Francisco: Art and Design Center • $575

NEW THIS TERM
Fundamentals of Green Leadership and Sustainability

X458 • 1 semester unit in Natural Resources

Learn how to lead sustainability initiatives in your workplace and change attitudes through informed decisions. Examine the historical role of free markets and study self-interest balanced against societal needs. Look at the sustainability movement through the lens of Adam Smith’s The Theory of Moral Sentiments; and evaluate his theory of the “invisible hand.” Review some modern sustainability leaders (Hawken, Anderson, and Lovins), and examine how their disparate views are aligned with an overarching need for useful information to be shared with government, business, and consumers.

EDP 336099
Nils Michael Langenborg, B.S., M.B.A.

5 meetings
Thursdays, 6:30–9:30 pm
April 21–May 19
San Francisco: Downtown Center • $435

Sustainability Leadership: Strategies and Paradigms

X419 • 1 semester unit in Natural Resources

A requirement in the Professional Program in Responsible Global Change Management; in Corporate Social Responsibility Reporting; and in Leadership in Sustainability and Environmental Management; an elective in the Certificate Program in the Essentials of Green Chemistry

Learn the fundamental qualities, attributes, and competencies to be an effective sustainability leader. This course teaches you how to determine whether your company is organized in a sustainable manner. It also helps you understand what is required of you as a leader when the demands of declining resources affect your company’s bottom line. Learn how to effectively communicate sustainability in your work environments; link green initiatives to cost savings and brand recognition; and engage shareholders and stakeholders in making decisions that move individuals, teams, and companies toward sustainability. Enrollment is limited.

EDP 336073
Miriam Karell, M.S.L.S.

5 meetings
Thursdays, 6:30–9:30 pm
March 17–April 14
San Francisco: Downtown Center • $475

NEW THIS TERM
Environmental Justice: History, Politics, and Policy

X449 • 1 semester unit in Natural Resources

Environmental justice addresses the intersection of social issues and environmental conservation. It refers to an equitable spatial distribution of burdens and benefits to groups such as racial minorities and residents of economically disadvantaged areas or developing nations. In this course, you explore the principles, history, and politics surrounding environmental justice, both locally and globally. You also examine the role of advocacy organizations in influencing public policy and resource allocation. Study global trends, new policy initiatives, and innovative scientific research. Gain insight into the strengths and weaknesses of different responses to environmental justice issues by examining case studies.

EDP 326868
Cheryl Holzmeyer

2 meetings
Saturdays, 9 am–5:30 pm
February 26 and March 5
San Francisco: Downtown Center • $385
NEW THIS TERM

Concepts of Environmental Sociology and Sustainability

X460 • 1 semester unit in Natural Resources

Learn about principles of ecological psychology, environmental sociology, and cultural ecology and their influence on human behavior, sustainability, and quality of life. Explore the adaptability of people and cultures to global change. Examine concepts of ecological determinism, and relate them to sustainable business practices and macroeconomics. Understand consumerism and its contextual opposite, “enoughism,” and study emerging theories such as the Human Exceptionalism Paradigm (HEP), New Ecological Paradigm (NEP), Deep Ecology, and the Gaia World View. Understand how human decisions affect pollution, consumption, and social justice in the modern global change dilemma.

EDP 336255
William Coleman, B.A.
2 meetings
Friday and Saturday, 9 am–5 pm
April 1 and 2
San Francisco: Art and Design Center • $465

Redevelopment Strategies to Build Sustainable Communities

X437 • 1 semester unit in Natural Resources

Study redevelopment as a strategy to help revitalize and create sustainable communities across California. Learn the legal and financial mechanisms that incentivize infill development and revitalize old neighborhoods and once-vibrant employment centers. Gain practical understanding of redevelopment strategies and planning processes from inception through project implementation. Through case studies, you learn strategies and best practices on how to effectively establish and implement redevelopment projects that comply with California Community Redevelopment Law (CRL) and align with sustainable community goals.

EDP 336388
Libby Seifel, M.C.P., AICP
2 meetings
Friday and Saturday, 9 am–5 pm
March 18 and 19
San Francisco: Art and Design Center • $450

Energy

COURSE INFORMATION

(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/sustainability

NEW THIS TERM

Introduction to Renewable Energy Technologies

X450 • 2 semester units in Natural Resources

Energy generation and supply are changing due to increased political action and awareness about overall costs, consumption of natural resources, and impacts on climate change. Whether you are a technical or nontechnical professional, gain a broad understanding of energy generation and supply, its problems, and new technologies that supply renewable energy (wind, solar, water, biomass, and geothermal). Through lectures and industry speakers, you learn the fundamentals of each technology as well as advantages and disadvantages. You also review the U.S. electricity system and examine novel energy-efficient production technologies, combined heat and power (CHP), and demand-side management. Prepare to examine U.S. energy supply, trends, and policy and the related issues in rural and developing countries.

EDP 326884
Joe Westersund, M.S.
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
Berkeley: Golden Bear Center • $580

Fundamentals of Energy and the Energy Industry

X457 • 1 semester unit in Natural Resources

Examine current and future energy demands; energy generation, transmission, and delivery systems; environmental effects (including climate change); energy management in organizations; and U.S. product efficiency standards. Understand different energy resources (fossil fuels, and coal gasification), renewable sources (hydro, wind, and geothermal), and alternatives like nuclear power and hydrogen, as well as the environmental and human health effects associated with energy extraction, generation, and usage. Learn basic theory and terminology to help you make good business decisions for efficiency or redirect your career into the energy industry. Explore energy policies, legislation, and regulations, and discover how energy efficiency and conservation play a key role in meeting present and projected future energy demands.

EDP 326892
Jeff Staudinger, M.S., P.E., CHMM
5 meetings
Wednesdays, 6:30–9:30 pm
April 20–May 18
Berkeley: Golden Bear Center • $465

Professional Program in Sustainability and Energy

Whether you work in the public or private sector—from government agencies and nonprofit organizations to utility companies, energy consulting firms, and other businesses—prepare yourself to manage energy use and its impact on the environment. Examine energy sustainability from the perspectives of technology, municipal planning, and policy, and learn to develop sustainable energy systems successfully. Understand the impact of current energy use patterns on climate change and of climate change law on local governments and businesses.

This program is ideal if you wish to change or advance your career. It enables you to make assessments, analyze, and manage issues related to energy use, climate change, and sustainability.

Curriculum Requirements

The program consists of 2 academic credit courses and 2 one-day workshops for a total of 2 semester units and 1.4 ceu (44 hours of instruction).

Required Courses

• Energy Use and Climate Change X435 (offered fall and summer terms)
• Energy for Sustainability; Technology, Planning, and Policy X436 (offered spring and summer terms)
• Introduction to Sustainability Management (offered fall and summer terms)
• Climate Change and Law AB 32: What It Means for You (offered fall and summer terms)

Learn More and View the Brochure

course@unex.berkeley.edu
extension.berkeley.edu/sustainability

Enroll using EDP 302935
Energy for Sustainability: Technology, Planning, and Policy
X436 • 1 semester unit in Natural Resources

A requirement in the professional programs in Sustainability and Energy and in Sustainability and Transportation

Review the environmental impact of global energy systems, energy-use life cycles, and alternative options. Learn strategies from energy efficiency, conservation, renewable energy sources, green buildings, environmental responsibility, and emerging clean-tech innovations. Study the financial impact these strategies have on the U.S. economy and their effect on global climate change. Evaluate policies, regulations, and laws at the local and state level. Learn how energy strategies impact residential and commercial sectors, corporations, and governments. Examine issues in science, technology, policy, law, and business.

EDP 326827
Jessie Denver, M.A.
2 meetings
Saturdays, 9 am–5:30 pm
January 22 and January 29
Berkeley: Golden Bear Center • $495

10 Steps to Implementing Energy-Efficient Data Centers

1.5 ceu

Learn the 10 key steps for implementing energy-efficient data centers, and gain an overview of green IT in this course. Understand different hardware options, operational and facility modifications, environmental impacts, and policy changes that are needed to achieve economically sustainable, energy-efficient data centers. Gain knowledge about how developers, software providers, and data center operators benefit from implementing cost-effective green initiatives within IT departments. Create a green IT solution flow diagram that includes tactical and strategic initiatives, and learn ways to implement green computing in your workplace.

EDP 336230
Hareendranath Kattana, B.S., M.B.A., CPM
2 meetings
Saturdays, 9 am–4:30 pm
January 22 and February 5
Belmont: Belmont Center • $450

Principles of Green IT for Sustainability

0.7 ceu

(formerly Green IT for Sustainability)

Gain a solid understanding of green information technology concepts, and examine green IT from economic, environmental, and corporate social responsibility perspectives in this survey course. Acquire the basic vocabulary of the emerging green IT industry, and learn to communicate the industry’s benefits to shareholders and stakeholders. Understand key drivers of current green IT investments, their correlation to corporate sustainability responsibility, and typical barriers and challenges that CIOs and IT managers face.

EDP 336107
Hareendranath Kattana, B.S., M.B.A., CPM
1 meeting
Saturday, 9 am–5 pm
February 12
Belmont: Belmont Center • $325

Curriculum Requirements

The program consists of 2 academic credit courses and 4 one-day workshops for a total of 2 semester units and 2.8 ceu (58 hours of instruction).

Required Courses
- Overcoming Barriers to Implementing Sustainable Change X417 (offered every term)
- Introduction to Sustainability Management (offered summer and fall terms)
- Introduction to Environmental Management (offered spring and summer terms)
- Climate Change and Law AB 32: What It Means for You (offered fall and summer terms)
- Introduction to Ecological Asset Management (offered spring and summer terms)
- Sustainability Leadership: Strategies and Paradigms X419 (offered every term)

Learn More and View the Brochure
extension.berkeley.edu/spos/globalchange.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302969
Transportation

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/sustainability

UPDATED FOR 2011

Introduction to Sustainable Transportation Design Plans
X497 • 1 semester unit in Civil and Environmental Engineering
A requirement in the Professional Program in Sustainability and Transportation

Review basic principles of transportation design that promote sustainable alternatives and minimize environmental impact. Examine additional design considerations such as end-user preferences, stakeholder perspectives, ease of implementation, ongoing facilities operation, and maintenance concerns. Understand terms, concepts, and challenges of sustainable growth, and learn essential skills for implementing successful design and managing planning programs. You are encouraged to attend a local city council meeting (self-arranged) and turn in an optional report.

EDP 326876
Daniel Kuhmann, M.A.
5 meetings
Thursdays, 6:30–9:30 pm
March 17–April 14
Berkeley: Golden Bear Center • $550

NEW THIS TERM

Sustainable Urbanism, Transit, and Climate Change
X453 • 2 semester units in Civil and Environmental Engineering

Urban, city, and town planning integrates land-use planning and transportation planning to improve the built, economic, and social environments of communities. Learn about sustainable urbanism through theory and applied case studies. Explore ways of designing neighborhoods, streets, blocks, and buildings that can be models for the next generation of cities. Understand how environmental and social challenges impact planning and urban development policy and decisions. Examine the functionality and quality of urban living through sustainable practices.

EDP 336438
Madeline Zayas-Mart, M.Arch.
10 meetings
Wednesdays, 6:30–9:30 pm
March 9–May 11
Berkeley Campus: 151 Barrows Hall • $580

California’s increased commitment to reducing greenhouse gases means that understanding how to plan, design, and manage sustainable transportation systems is more important than ever before. This program helps you recognize the benefits of sustainability management and apply its techniques to improve transportation decision making. In addition to effective approaches to solving typical planning problems, you gain skills in using life-cycle analysis methodologies to evaluate transportation systems.

Whether you come from the public or private sector, you gain an understanding of sustainability management principles and the impact of climate change law on businesses and governments. Acquire the skills to understand, assess, analyze, and manage issues related to sustainable transportation, energy use planning, and climate change. Focusing your course of study in this important field puts you on the path to change or advance your career.

Curriculum Requirements
The program consists of 2 academic credit courses and 3 one-day workshops for a total of 2 semester units and 2.0 ceu (50 hours of instruction).

Required Courses
• Introduction to Sustainable Transportation Design Plans X497 (offered spring and summer terms)
• Energy for Sustainability: Technology, Planning, and Policy X436 (offered spring and summer terms)
• Transportation Sustainability: Life-Cycle Assessment (offered fall and summer terms)
• Introduction to Sustainability Management (offered fall and summer terms)
• Climate Change and Law AB 32: What It Means for You (offered fall and summer terms)

Learn More and View the Brochure
extension.berkeley.edu/spos/transport.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302951
NEW THIS TERM
Principles of Ecology for Nonscientists
X454 • 1 semester unit in Natural Resources
Learn the principles of ecology and concepts of life processes, and understand the movement of energy and materials through natural systems, population dynamics, and biodiversity. Examine the practical applications of ecology in conservation biology, wetland management, natural resource management (for example, agriculture, forestry, and fisheries), city planning (urban ecology), community health, and economics. Learn about human ecology and ecopsychology and study a broad spectrum of interrelated global issues through case studies. Understand the relationships among ecology and commerce, trade, world food supply, and ocean decline.

EDP 336198
William Coleman, B.A.
2 meetings
Saturdays, 9 am–5 pm
April 9 and April 16
San Francisco: Downtown Center • $465

NEW THIS TERM
Sustainable Remediation Methods for Soils and Water
X451 • 1 semester unit in Natural Resources
Learn about site contaminant and site remediation of contaminated soil and water. Examine the principles of case closure and productive reuse of the impacted property by using sustainable cleanup methodologies that minimize energy, water use, material resources, and labor, as well as reduce waste disposal. Find out how to lower the carbon footprint of sustainable remediation field activities. Evaluate and design different cleanup methodologies to treat hydrocarbons, solvents, heavy metals, and nitrates.

EDP 336248
James Jacobs, M.A., P.G., C.H.G.
7 meetings
Mondays, 6:30–8:30 pm
March 28–May 2 (also Monday, May 9, 6:30–9:30 pm)
San Francisco: Downtown Center • $425

NEW THIS TERM
Wastewater Reuse
X4021 • 1 semester unit in Civil and Environmental Engineering
The reuse of treated wastewater is increasingly important as a key component in sustainable resource management. Compare and contrast different tertiary treatment technologies, including media, disk, and membrane filtration, chlorination, UV, and advanced disinfection. Examine case studies where recycled wastewater is used in California; understand the challenges and how public acceptance issues were addressed. Understand the concepts of wastewater recycling and reuse and be able to discuss related environmental and public health concerns in addition to the regulatory requirements.

EDP 336578
Paul Friedlander, M.S.
5 meetings
Tuesdays, 6:30–9:30 pm
February 8–March 8
Berkeley Campus: 174 Barrows Hall • $445

Fundamentals of Environmental Protection and Regulatory Compliance
X445 • 1 semester unit in Natural Resources
(formerly Climate Change and Environmental Protection Programs)
An elective in the Professional Program in Leadership in Sustainability and Environmental Management
Learn the fundamentals, strategies, and techniques for implementing and managing environmental protection and related regulatory compliance. Understand the methods for effective implementation and compliance with California and federal environmental regulations regarding air quality, water quality, greenhouse gas accounting, and overall sustainability. Learn proven techniques and critical skills to articulate, advocate, and demonstrate the cost and benefit of proposed programs to stakeholders and gain their support. As emerging environmental professionals, prepare to start or advance your career in the expanding green economy.

EDP 336743
Rebecca Anderson, M.E.H.S.
2 meetings
Saturdays, 9 am–5 pm
April 2 and April 9
Berkeley: Golden Bear Center • $550
Environmental Law

COURSE INFORMATION
(510) 642-4151
course@enrst.berkeley.edu
extension.berkeley.edu/sustainability

Environmental Law and Regulation
X440 • 2 semester units in Public Health
30 hours MCLE credit for attorneys
A requirement in the Professional Program in Leadership in Sustainability and Environmental Management

Study federal, state, and local environmental regulations from the perspective of permitting and operational compliance. You get an overview of the key program elements that environmental managers, regulators, and consultants need to know. Discussions cover environmental permitting and the California Environmental Quality Act (CEQA), industrial operations and compliance auditing, reporting obligations and cleanup responsibilities, and other programs necessary for a complete understanding of the multimedia environmental regulatory framework in California.

EDP 326314
Gary Lucks, J.D., CPEA
4 meetings
Fridays and Saturdays, 9 am–5:30 pm
February 4–February 12
San Francisco: Art and Design Center • $495

Introduction to the Clean Water Act
X452 • 1 semester unit in Natural Resources
Learn the fundamentals of the Clean Water Act (CWA), the federal law that sets the goals for eliminating and controlling the release of toxic substances into surface waters. Ideal if you desire a good working knowledge of how to apply the CWA, the course covers how the CWA evolved, the primary threats to water bodies regulated under the Act, and how to apply it to environmental impact assessment reports. Learn key terminology, basic hydrology, and the threshold limits and certifications required. Study public health concerns and ecological impacts, and analyze relevant judicial decisions where the CWA was applied. Learn how to formulate proposals to strengthen and streamline the Act to meet some of its objectives.

EDP 336164
William Burns, B.S., Ph.D.
2 meetings
Saturdays, 9 am–5:30 pm
January 22 and January 29
San Francisco: Art and Design Center • $395

Subdivision Map Act
0.7 ceu • 7 hours MCLE credit for attorneys
This course provides a thorough overview of the provisions of California laws that govern the subdivision of land, focusing on the most important of all, the Subdivision Map Act. Legislative amendments and new interpretations resulting from recent court decisions are covered, as well as the relationship of the Subdivision Map Act to the General Plan, specific plans, zoning, and CEQA. Problems of practice under the act are examined as are enforcement and grounds for approval or denial.

EDP 336149
Michael Durkee
1 meeting
Saturday, 9 am–5 pm
February 26
San Francisco: Downtown Center • $425

Wastewater Laws and Regulations
0.6 ceu
Get an overview of water pollution laws and regulations, including the regulatory processes of the Regional Water Quality Control Boards, the State Water Resources Control Board, and the U.S. Environmental Protection Agency. You also examine the requirements that waste discharges must follow to be in compliance with existing laws and regulations.

EDP 336222
Steven Moore, M.S.
1 meeting
Tuesday, 9 am–4 pm
February 15
Berkeley: Golden Bear Center • $325

Designing Effective California Public-Private Partnerships
X423 • 1 semester unit in Natural Resources
15 hours MCLE credit for attorneys
Public-private partnerships (PPPs) provide a unique way for the government and private developers to work together to create sustainable and profitable urban infill developments. This two-day course gives you practical techniques for designing, evaluating, and negotiating effective PPPs. You learn how to effectively use California’s unique legal and financial tools to accomplish a broad range of projects, including the redevelopment of surplus public properties and brownfield sites; the creation of mixed-use developments that incorporate green design; and public-transit-based, mixed-income housing.

EDP 426262
Libby Seifel, M.C.P., AICP
2 meetings
Thursday and Friday, 9 am–5 pm
May 12 and 13
San Francisco: Art and Design Center • $450

Environmental Management Systems and ISO 14000
X422 • 2 semester units in Natural Resources
A requirement in the Professional Program in Leadership in Sustainability and Environmental Management
An Environmental Management System (EMS) provides private- and public-sector organizations with a systematic approach to environmental improvement. Learn to use the international EMS standard ISO 14000 as the framework for environmental improvement, sustainability programs, carbon reduction strategies, environmental compliance, and operational efficiencies.

EDP 336131
Gary Lucks, J.D., CPEA, and Susan Sakaki, M.P.A., CHMM
10 meetings
Thursdays, 6:30–9:30 pm
January 6–March 10
Berkeley Campus: 126 Barrows Hall • $525

CEQA Update
0.7 ceu • 7 hours MCLE credit for attorneys
This is an important update for planners, attorneys, and others involved in land use issues who need to keep up with changes in the use and application of the California Environmental Quality Act (CEQA). The course covers the application of CEQA to special situations, its current use in the environmental impact report process, and new legislation of specific relevance to it. Case law is used to focus on changing agency guidelines and interpretations of what constitutes “substantive legal adequacy” of an environmental analysis. Planners, officials, and industry representatives will find this course of particular interest. Some knowledge of or experience with CEQA is recommended.

EDP 336586
Jennifer Hernandez, J.D.
1 meeting
Friday, 9 am–5 pm
April 8
San Francisco: Downtown Center • $375

San Francisco: Art and Design Center
April 8
Jennifer Hernandez, J.D.
EDP 336586
SUSTAINABILITY STUDIES

Climate Change

COURSE INFORMATION
(510) 642-4151
course@unex.berkeley.edu
extension.berkeley.edu/sustainability

Introduction to Climate Change, Environment, and Sustainability
X444 • 2 semester units in Natural Resources
A requirement in the Professional Program in Leadership in Sustainability and Environmental Management
Learn basic concepts of environmental, ecological, agricultural, and related health sciences topics. Review scientific evidence and examine issues related to natural cycles of the biosphere, biodiversity, ecological restoration, and environmental management. Study a broad spectrum of interrelated global issues through hands-on case studies, in which you are equipped with knowledge to begin planning for a sustainable future.
Basic knowledge of biology is recommended.
EDP 336404
William Coleman, B.A.
4 meetings
Saturdays, 8:30 am–5 pm
January 8–February 26 (no meeting January 15 and 29 and February 12 and 19)
Belmont: Belmont Center • $695

NEW THIS TERM
Local Climate Change Policy and Programs
X456 • 1 semester unit in Natural Resources
Gain an understanding of local policy, current political contexts, and cutting-edge initiatives to combat climate change at the local level. Learn the skills you need to generate an inventory of emissions, develop climate action plans, and support their implementation. Whether you work for a local government, business, or nonprofit organization, you learn about the role of local governments in reducing greenhouse gas emissions, as well as the impact of current state, federal, and international policies on local governments and communities. Develop a practical, effective emissions-reduction action plan that engages stakeholders, includes proven strategies, and quantifies the benefits of implementation.
EDP 336412
Ryan Bell, M.E.S., and Melissa Capria, B.A., M.A.
2 meetings
Saturdays, 8:30 am–5 pm
April 2 and April 9
Belmont: Belmont Center • $490

Climate Change and Green Building: The Business Case
X401.3 • 2 semester units in Civil and Environmental Engineering
An elective in the Professional Program in Solar Energy and Green Building
Understand cost, benefit, and risk in the business of green building. Study best practices and lessons learned in implementing green-building business strategies. Examine the impact of federal and state climate-change laws on greenbuilding investment strategies and business decisions. Study market trends and case studies, and focus on economics and climate-change issues. Sharpen your green-building business knowledge through hands-on economic analysis and in-class discussions. Gain a competitive edge by developing effective and insightful business strategies.
EDP 326330
Kelly Gearhart, B.A.
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
San Francisco: Downtown Center • $695

Introduction to Greenhouse Gas Management
0.7 ceu
Prepare to meet California climate change legislature (AB 32) requirements, and learn the latest policies, concepts, methods, and tools supporting management of greenhouse gases (GHGs). Study the relationship of GHGs to environmental quality management, sustainability, and the emerging market for pollution prevention credits. Understand the signficance of GHGs from the perspectives of climate change, sustainability, human health, and social welfare. Examine technology options for controlling greenhouse gas emissions and mitigating atmospheric CO₂. Learn business development and career opportunities in emerging GHG management markets.
EDP 326470
William Coleman, B.A.
1 meeting
Saturday, 9 am–5:30 pm
March 12
Berkeley: Golden Bear Center • $295
A trauma and hospice nurse for 20 years, Corey Caballero says that design is really his first passion. After much life and career deliberation, Caballero is now one year away from completing the Certificate Program in Interior Design and Interior Architecture. “When I read the curriculum, it just stood out to me as what was right for me at my age,” he says.

Caballero credits the program with his current design confidence. As a result, he and his partner, an architect, now own their own residential interior design firm: Bancroft Caballero Design Studio. “The program connected me with the Design Center; it connected me with other professionals; and it helped me build the relationships necessary to have a successful business,” Caballero explains.

Jason Hsieh has a bachelor’s degree in engineering physics from the University of California, Berkeley. The former owner of his own tutoring business, Hsieh is changing directions and going to medical school. Hsieh credits UC Berkeley Extension’s Post-Baccalaureate Health Professions Program with helping him prepare. “The program has gotten me where I need to go,” he says. “Overall, all the instructors want you to succeed.”

Choosing UC Berkeley Extension, in part, because of its affiliation with UC Berkeley, Hsieh also notes the flexibility of the curriculum. “Extension had a flexible program where I didn’t have to take certain classes, but instead I could take whatever electives I wanted to,” he says. “And it worked with my schedule.”

With career success in both retail and commercial real estate, Kathy Huber is expanding her interests to the solar industry. “I was looking for an industry that was growing, that I believed in, and where I could make a difference and learn something new,” she says.

Now vice president of acquisitions for an early-stage solar start-up company, Alta Energy, Huber puts her education to use every day. “There’s barely a day that goes by that I don’t use something I learned from the classes,” she says. In the future, Huber plans to take additional solar courses at UC Berkeley Extension. “I really think it’s important to continue taking classes because I feel like I’ve only scratched a little bit of the surface of what there is to learn,” she says. “To me, life is about learning.”

With a bachelor’s degree in fine arts from Colgate University in New York, Rachel Seldin has a professional background in the New York fashion industry. But after moving to San Francisco, she admits that things are different on the West Coast. “Fashion was no longer the ‘it factor’ in San Francisco,” she says. “I needed to use my skills in a different way, and it seemed that interior design was fashion for the home.”

One semester away from graduating from UC Berkeley Extension’s Certificate Program in Interior Design and Interior Architecture, Seldin is already an assistant designer at Lotus Bleu in San Francisco—able to put the certificate’s practical training to use. “Someone said to me the other day at work, ‘We need to do a calculation for the window treatments. It’s really hard,’” she says. “And I said, ‘I’ve done that in class. I can do that.’”
Emerald Mitchell, taking a break from her undergraduate studies at Barnard College in New York, is a more enriched student due to two UC Berkeley Extension courses—including The Craft of Writing, which she credits with making her a better writer.

“In preparation for my final portfolio, I wrote a poem about one of my experiences,” Mitchell says. “It is the best poem I have ever written, and I would not have had enough insight to write it before taking the class. [Instructor Lindsey Crittenden’s] teaching has truly changed my writing for the better.” In addition to passionate teachers, Mitchell appreciates Extension’s small class sizes and her fellow students, who are valuable repositories of information about the working world.

Transformed into an active, adult learner, Mitchell is returning to her undergraduate studies confident and optimistic. “Ever since I completed my classes, my mind-set has been positive,” she says. “I know that I have far more tools for success now than I had before I enrolled.”
Your path to growth as a writer starts here. With UC Berkeley Extension, you can add polish to your work no matter what kind of writing you do. Take courses on writing everything from poetry, short stories, and novels to memoirs, travel features, and technical documents. Learn how to break into publishing. Or strengthen your skills in editing and grammar. Instructors who are published writers ensure you’re learning from the very best.

If you’re ready to make a greater commitment to your craft, the Post-Baccalaureate Certificate Program in Writing is one of a kind in the Bay Area and the ideal way to formalize your training. The program helps you build a strong portfolio and enhance your candidacy for graduate study in creative writing.

Whether you come for a weekend retreat or a professional certificate, UC Berkeley Extension can help you take your writing to the next level.
Writing, Editing and Technical Communication

Free Information Session
Attend a free information session to discover how UC Berkeley Extension can help you achieve your goals. Learn more about courses and programs, meet other prospective students, talk to instructors and staff, and ask questions. To reserve your space, call (510) 642-4111 or visit extension.berkeley.edu.

Post-Baccalaureate Certificate Program in Writing
EDP 016212
Thursday, January 6, 6–7 pm
Berkeley: Golden Bear Center • FREE

Professional Sequence in Technical Communication
EDP 326629
Tuesday, May 17, 5:30–6:30 pm
Berkeley: Golden Bear Center • FREE

Professional Sequence in Editing
EDP 026674
Thursday, January 20, 6–7 pm
Berkeley: Golden Bear Center • FREE

Grammar, Mechanics, and Usage for Editors
X445 • 2 semester units in English
A requirement in the Professional Sequence in Editing
Editors must have a strong command of English grammar, syntax, and mechanics to edit the work of others clearly, confidently, and correctly. Gain a practical understanding of grammar and the logic governing syntax and punctuation use. Learn to analyze grammar and syntax, understand sentence structure, transition from one idea to another, and choose the right words to convey meaning, among other topics. Homework exercises, frequent quizzes, and a multidraft editing assignment help build your expertise. Enrollment is limited.

Prerequisite: Students must be proficient in English and have a solid grasp of English grammar.

Sec. 1 EDP 846600
Linda R. Thompson, M.A.
January 18–April 12
Online • $595

Sec. 2 EDP 846618
Leda Ciraolo, Ph.D.
January 25–April 1
Online • $595

Sec. 3 EDP 016501
Vici Casana, M.A.
12 meetings
(1 holiday to be announced)
San Francisco: Art and Design Center • $595

Literature and Humanities

Please see the range of literature courses Extension offers in the Humanities, Languages, and Personal Development department, beginning on p. 138.

Editing
COURSE INFORMATION
(510) 642-6362
letters@unex.berkeley.edu
extension.berkeley.edu/subject/editing.html

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

FREE INFORMATION SESSION
Professional Sequence in Editing
Discover how UC Berkeley Extension’s program can help you develop the skills to enter the editing field or add to your expertise as a professional editor. An opening presentation is followed by an opportunity to get your questions answered. For more information about the Professional Sequence in Editing see p. 199 or visit extension.berkeley.edu/spos/edit.html.

EDP 026674
1 meeting
Thursday, 6–7 pm
January 20
Berkeley: Golden Bear Center • FREE

Editing Workshop I: Introduction to Copyediting
X405 • 2 semester units in Journalism
A requirement in the Professional Sequence in Editing
Get an overview of the editorial process in this beginning copyediting course, including the use of style manuals and reference books, creation of style sheets, and methods of querying authors and project editors. Learn how to edit using conventional marks and symbols; apply the appropriate level of copyediting; eliminate bias; query permissions; ensure consistency; typecode a manuscript; and copyedit and insert figures, tables, and artwork. Enrollment is limited.

Prerequisite: Grammar, Mechanics, and Usage for Editors X445

Sec. 1 EDP 846626
Leda Ciraolo, Ph.D.
January 18–April 12
Online • $599

Sec. 2 EDP 846634
John Curley
January 25–April 1
Online • $599

Sec. 3 EDP 846667
Gail Hynes Shea
January 25–April 1
Online • $599

Sec. 4 EDP 016519
Rita Kasperek, M.F.A.
10 meetings
Wednesdays, 6:30–9:30 pm
February 16–April 20
Berkeley Campus: 140 Barrows Hall • $595

Sec. 5 EDP 016527
Gail Hynes Shea
10 meetings
Thursdays, 6:30–9:30 pm
March 24–May 26
San Francisco: Art and Design Center • $595

For Complete Course and Schedule Information Visit Extension.Berkeley.Edu
WRITING, EDITING, AND TECHNICAL COMMUNICATION

Editorial Workshop II: Intermediate Copyediting
X415 • 2 semester units in Journalism

A requirement in the Professional Sequence in Editing

Study more complex aspects of copyediting and the fine points of editorial style that editors of book-length manuscripts must master. Practice working within the three levels of copyediting—light, medium, and heavy—and learn how to edit using different style manuals. You also get additional practice working with codes and type specifications, photos and artwork, tables, and references and footnotes. Frequent editing assignments are required.

Prerequisite: Editorial Workshop I: Introduction to Copyediting X405

EDP 846584
Linda R. Thompson, M.A.
January 18–April 12
Online • $599

Advanced Editorial Workshop: Substantive Editing
X425 • 2 semester units in Journalism

A requirement in the Professional Sequence in Editing

Develop your skills in applying the principles of effective writing to the editing of nonfiction book manuscripts. Examine two phases of substantive editing—line editing and developmental editing—and learn the art of proposing editorial changes other than those required to correct errors or to achieve a consistent editorial style. Learn how to edit for clarity and concision, how to identify problems of cohesion and coherence (logical flow), and how to refine and invigorate an author’s style.

Prerequisite: Editorial Workshop II: Intermediate Copyediting X415

Sec. 1 EDP 846592
Greer Lleuad, B.F.A.
January 18–April 12
Online • $599

Sec. 2 EDP 016535
Leda Cirillo, Ph.D.
10 meetings
Sundays, 1–4 pm
February 27–May 22
(no meeting April 3, 10, and 24)
Berkeley: Golden Bear Center • $595

NEW THIS TERM
Traditional and Self-Publishing Opportunities for Writers

Learn about the best option for getting your work published.

For course schedule, see p. 204.

Indexing: Theory and Application
X477 • 3 semester units in Journalism

Recipient of the 2005 Distance Learning “Community Practice” Course Award from the University Continuing Education Association (UCEA)

A good index greatly enhances the usability and value of a book, yet few writers and editors are versed in the construction of this vital part of a nonfiction publication. Learn the fundamentals of writing, editing, and delivering back-of-the-book indexes to publishing clients. You also learn the basic format, guidelines, and term-selection approaches of embedded and Web indexing, using three major indexing software programs to complete several of your assignments.

Prerequisites: Strong language, reading, computer, and Internet skills. A PC running the Windows OS is highly recommended. See Web for details.

This course has six rotating sections with varying instructors: Sylvia Coates, Heather Ebbs, Lucie Haskins, Fred Loise, Max McMaster, and Jan C. Wright.

For information about available sections visit extension.berkeley.edu/cat/course394.html.

Professional Sequence in Editing

Offering proficiency in copyediting, line editing, and developmental editing, the Professional Sequence in Editing is the ideal editorial training for those with a passion for fine-tuning the written word. Whether you want to develop a rewarding editing career, rise to a management position in publishing, or master the editorial components of a related profession, the program can help turn your editorial sensibilities into marketable skills.

Curriculum Requirements

The curriculum consists of 4 required courses for a total of 8 semester units (120 hours of instruction).

Required Courses

We recommend you take the courses in the following sequence:

• Grammar, Mechanics, and Usage for Editors X445 (offered every term and online)
• Editorial Workshop I: Introduction to Copyediting X405 (offered every term and online)
• Editorial Workshop II: Intermediate Copyediting X415 (offered spring and fall terms and online)
• Advanced Editorial Workshop: Substantive Editing X425* (offered spring and fall terms and online)

*A course from the Professional Sequence in Technical Communication of equivalent length and unit value may be substituted for Advanced Editorial Workshop: Substantive Editing X425.

Learn More and View the Brochure
extension.berkeley.edu/spos/edit.html
(510) 642-6362
letters@unex.berkeley.edu

Enroll using EDP 022343
Professional Sequence in Technical Communication

The rapidly expanding software, hardware, consumer electronics, biopharmaceutical, and financial services industries have increased the demand for technical communicators and editors in the Bay Area and beyond. Technical communicators play a vital role in bridging the gap between subject matter experts (such as scientists and engineers) and those who must understand how to implement their ideas. The Professional Sequence in Technical Communication offers the skills to translate complex concepts and gain a competitive edge in the field.

Curriculum Requirements
The curriculum consists of 3 required courses and 1–2 electives for a total of 8 semester units (120 hours of instruction).

Required Courses
• Technical Communication I X465* (offered spring and fall terms)
• Technical Communication II X466 (offered every term and online)
• Technical Editing X437 (offered summer term)
* Technical Writing X412 (offered every term and online) may be substituted for Technical Communication I X465.

Elective Available This Term
• Visual Design for Technical Communication X467

Learn More
extension.berkeley.edu/spos/techcom.html
(510) 642-4151
course@unex.berkeley.edu

Enroll using EDP 302356

Free Information Session: Professional Sequence in Technical Communication
Meet UC Berkeley Extension instructors and staff members, and find out more about the curriculum and direction of this program. An opening presentation is followed by a Q&A session. For more information, see this page or visit extension.berkeley.edu/spos/techcom.html.

EDP 326629
1 meeting
Tuesday, 5:30–6:30 pm
May 17
Berkeley: Golden Bear Center • FREE

Technical Communication I
X465 • 2 semester units in Journalism
A requirement in the Professional Sequence in Technical Communication; an elective in the Post-Baccalaureate Certificate Program in Information Systems and Management
Learn the requirements for designing and developing technical documentation from start to finish. As you develop your class project, practice how to define your audience and purpose, determine appropriate document format and style, improve the clarity and organization of your writing, and review and edit your work more effectively. Learn about teamwork, oral communication, and presentation skills that can increase your success in the technical communication field.

Prerequisites: See Web.

EDP 316125
Linda Urban, B.A.
10 meetings
Tuesdays, 6:30–9:30 pm
January 11–March 22 (no meeting February 15)
Berkeley: Golden Bear Center • $695

Technical Communication II
X466 • 2 semester units in Journalism
A requirement in the Professional Sequence in Technical Communication
Build on the skills you developed in Technical Communication I X465. Hone your ability to define the audience and purpose of a document to present the information in an optimal form. Improve your technical writing style and technique while creating writing samples that include a variety of document types for both paper and online presentation. Review technical communication tools and technology, as well as current Web content and formatting languages.

Prerequisite: Technical Communication I X465 (or the online course Technical Writing X412) or equivalent

Sec. 1 EDP 336297
Louise Galindo, B.A.
10 meetings
Thursdays, 6:30–9:30 pm
March 24–May 26
San Francisco: Downtown Center • $595

Sec. 2 EDP 877803
John Tabor, B.A.
Enroll anytime
Online, proctored final exam • $550

Technical Writing
X412 • 3 semester units in English
May be substituted for Technical Communication I X465 in the Professional Sequence in Technical Communication
Develop your ability to organize and craft information for manuals, journal articles, reports, and other technical publications. Learn document design and production principles, computerized interactive documentation, the use of desktop publishing, and the publication-to-print process.

EDP 877845
John Tabor, B.A.
Enroll anytime
Online • $770

Visual Design for Technical Communication
X467 • 2 semester units in Journalism
An elective in the Professional Sequence in Technical Communication
Study a broad range of topics in visual technical communication, including basic design principles applicable to any medium and interface design. Get a valuable introduction to visual design in books, reports, newsletters, brochures, Web pages, databases, multimedia presentations, and training programs. Design pages, charts, screens, flowcharts, and graphs, and gain a solid ability to think visually. Enrollment is limited.

Prerequisite: Technical Communication I X465

EDP 316133
Gregory Urban, B.S.
10 meetings
Tuesdays, 6:30–9:30 pm
March 29–May 31
Berkeley: Golden Bear Center • $495
Writing

COURSE INFORMATION
(510) 642-6362
letters@unex.berkeley.edu
extension.berkeley.edu/subject/write.html

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

FREE INFORMATION SESSION
Post-Baccalaureate Certificate Program in Writing

Find out how UC Berkeley Extension’s post-baccalaureate certificate for aspiring writers can help formalize your training and prepare for graduate study in creative writing. Whether your passion is poetry, fiction, or nonfiction, come to our information session to learn more about this program that’s the only one of its kind in the Bay Area. For more information about the certificate, visit extension.berkeley.edu/cert/writing.html.

EDP 016212
1 meeting
Thursday, 6–7 pm
January 6
Berkeley: Golden Bear Center • FREE

Creative Writing

The Craft of Writing
X421 • 2 semester units in English

A requirement in the Post-Baccalaureate Certificate Program in Writing

Creative writing students need to become comfortable with elements of the craft, whether they are fine-tuning an image in a poem or introducing a character in the beginning of a short story. Gain practical exposure to the uses, demands, and possibilities of craft in fiction, poetry, and nonfiction in this course. Enrollment is limited to 18.

Sec. 1 EDP 016238
Laurie Ann Doyle
10 meetings
Thursdays, 6:30–9:30 pm
January 13–March 17
Berkeley: Golden Bear Center • $525

Sec. 2 EDP 846550
Gene Tanta, M.A., Ph.D.
January 18–April 12
Online • $555

Exploring Your Creative Writing Potential
X70 • 2 semester units in English

An elective in the Post-Baccalaureate Certificate Program in Writing

Learn to assess your potential, identify your strengths, and develop valuable writing techniques in this course for beginning writers. Class exercises and weekly writing assignments help you discover your talents in a variety of forms: short fictional scenes, short stories, poetry, and journalistic writing. A supportive atmosphere helps you see how others respond to your writing. On completion, you should have a clearer sense of your writing strengths and a direction to take for more advanced courses.

EDP 867689
Mimi Albert, M.F.A.
Enroll anytime
Online • $550

Introduction to Writing Fiction
X464 • 2 semester units in English

An elective in the Post-Baccalaureate Certificate Program in Writing

Learn the basic concepts and techniques of writing fiction, with the aim of heightening your sense of language and developing your ability to solve problems of structure, characterization, viewpoint, story line, imagery, dialog, and believability. The instructor evaluates your manuscripts and allows time for classroom discussion. Enrollment is limited.

Sec. 1 EDP 893731
Mimi Albert, M.F.A.
Enroll anytime
Online • $550

Sec. 2 EDP 016246
Daniel Coshnear, M.F.A.
10 meetings
Mondays, 6:30–9:30 pm
March 21–May 23
San Francisco: Downtown Center • $525

Intermediate Fiction Writing
X440 • 2 semester units in English

An elective in the Post-Baccalaureate Certificate Program in Writing

Explore the craft of writing fiction, particularly if you have already completed Introduction to Writing Fiction X464 or the equivalent. Lectures and in-class exercises focus on the short story; however, if you are primarily interested in working on a novel, you can still benefit greatly. Examine the intricacies of plotting, narrative voice, and personal style. Class sessions include instructor-led critiques of your work and focus on improving your ability to edit and revise your stories. Enrollment is limited to 18.

EDP 016253
Monica Wesolowska, B.A.
10 meetings
Wednesdays, 6:30–9:30 pm
March 16–May 25
(one holiday to be announced)
Berkeley: Golden Bear Center • $525

Free Public Event

14th-Annual Student Reading Series
Come hear students in the writing program share their works of poetry, nonfiction, and fiction at our annual student reading events in May.
Admission is free!
Sunday, May 7, 4 pm
Books Inc., 1601 Van Ness Ave., San Francisco

Sunday, May 22, 3 pm
DISEL, A Bookstore, 5433 College Ave., Oakland

ENROLL NOW  VISIT EXTENSION.BERKELEY.EDU/ENROLL  CALL (510) 642-4111  203
Learning from the Masters: Techniques of the Literary Greats
X425 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Develop your skills at creating fiction by closely studying the work and methods of great writers, including writers as diverse as Raymond Carver, James Baldwin, Ernest Hemingway, and Alice Munro. You examine how these authors draw the reader in, introduce tension and sustain momentum, and use vivid details and specific incidents to create unforgettable settings and characters. **Enrollment is limited.**

EDP 016311
Laurie Ann Doyle
10 meetings
Thursdays, 6:30–9:30 pm
March 24–June 2 (no meeting April 7)
Berkeley: Golden Bear Center • $525

Poetry Workshop
X428 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Hone your writing through sympathetic, guided group response. Give and receive constructive criticism in a balanced, sensitive way without losing touch with the wildness and mystery of your own creative inspiration and unique approach to the poetic form. Read and discuss a variety of published poems to explore alternative techniques and ideas that may inform your work. Broaden your knowledge of poetry and its many possibilities, allowing you to experiment and stretch toward new expression. **Enrollment is limited to 18.**

EDP 016337
Cody Gates, M.F.A.
10 meetings
Wednesdays, 7–10 pm
March 23–May 25
San Francisco: Downtown Center • $525

Developing the Novel I
X125.1 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Explore the craft of longer fiction and how to meet its creative challenges. Each session includes a lecture on craft, supported by discussion of assigned readings and exercises to unlock the potential of your ideas. Learn how to develop characters, language, voice, pace, tone, theme, and setting, and participate in a group critique of student work. **Enrollment is limited to 18.**

Sec. 1 EDP 867614
Mimi Albert, M.F.A.
Enroll anytime
Online • $550

Sec. 2 EDP 016261
Mary Ann Koory, Ph.D.,
Extension Honored Instructor
10 meetings
Tuesdays, 7–10 pm
January 18–March 22
Berkeley Campus: 50 Barrows Hall • $525

Novel Writing Workshop
X405 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Are you an advanced writer with a novel in progress? This course enables you to participate in instructor-led critiques and discuss story line, pacing, mood, pivotal episodes, character, dialogue, viewpoint, and description. Some previous class or workshop experience is required (for example, Developing the Novel I X125.1 or equivalent), but you need not be published to enroll. Expect a supportive, give-and-take workshop experience. **Enrollment is limited to 12.**

Prerequisite: Manuscript submission required; see Web for details.

EDP 016279
Mary Ann Koory, Ph.D.,
Extension Honored Instructor
10 meetings
Wednesdays, 6:30–9:30 pm
March 30–June 1
San Francisco: Downtown Center • $595

Writing the Young Adult Novel
X472 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Have you ever dreamed of writing the next Harry Potter? Develop your ideas for a novel; through lectures and assigned reading, you explore techniques on developing voice, story structure and openings, scenes, and dialogue, as well as on establishing believable characters. Your goal in this course is to produce a strong opening that can wow agents and editors. Expect to submit your own writing at least twice in a workshop format, as well as participate in in-class writing exercises.

EDP 016295
Annemarie O’Brien, M.F.A.
10 meetings
Thursdays, 6:30–9:30 pm
February 10–April 21 (no meeting April 14)
Berkeley: Golden Bear Center • $525

Children’s Picture Book Writing Workshop
X471 • 1 semester unit in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Get an introduction to the craft of writing for children and the business of publishing children’s picture books. The goal is to produce one picture-book manuscript, get feedback, and work to strengthen the story with revision. There are weekly assignments, and half of the class time is dedicated to critiquing student work. The course provides an overview of the editing, agenting, and publishing process. Students should bring two favorite children’s books to the first meeting and be prepared to discuss them. **Enrollment is limited.**

EDP 016303
Alan Schroeder, B.A.
6 meetings
Mondays, 6:30–9:30 pm
April 18–May 23
Berkeley: Golden Bear Center • $375

Nonfiction
Writing Skills Workshop
X13 • 2 semester units in English
A requirement in the Post-Baccalaureate Certificate Program in Writing
This workshop is a practical approach to the writing process. Learn to analyze effective prose; develop a clear and logical point; build a coherent structure; and craft clear, appropriate sentences. In-class writing exercises, demonstrations, discussions, revisions, and private conferences build confidence as you improve the clarity, persuasiveness, and efficiency of your writing. The skills emphasized lend themselves to business or technical writing, as well as journalism or college-level essay writing. **Enrollment is limited.**

Prerequisite: Students must be proficient in English and have a solid grasp of English grammar.

Sec. 1 EDP 016220
Cody Gates, M.F.A.
10 meetings
Tuesdays, 6:30–9:30 pm
January 18–March 22
Berkeley Campus: 2311 Tolman Hall • $525

Sec. 2 EDP 846378
Margaret Steen, M.J.,
Extension Honored Instructor
January 18–April 12
Online • $555

NEW THIS TERM
Brushing Up on English Grammar
As a writer, you must have a strong, flexible command of English grammar, syntax, and mechanics. You must also understand how these elements are affected by the purpose and intended audience. Gain a practical understanding of grammar, syntax, and punctuation. Learn how to analyze sentence structure, untangle convoluted sentences, connect ideas logically, and adapt punctuation and word choice for different readers and contexts. In-class exercises and homework assignments help build expertise. You must submit assignments electronically in Microsoft Word. This course meets every other week.

Prerequisite: English language proficiency, Microsoft Word, access to e-mail

EDP 016352
Stuart Froman, M.A.
4 meetings
Saturday, 9 am–12 pm
January 29–March 12 (no meeting
February 5 and 13 and March 5)
Berkeley Campus: See Web for updates • $350

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Post-Baccalaureate Certificate Program in Writing

For aspiring writers serious about their craft, the UC Berkeley Extension Post-Baccalaureate Certificate Program in Writing is ideal. Formalize your training and prepare for graduate study in writing with this professional certificate—the only one of its kind in the Bay Area. Build your writing portfolio, and gain a credential that shows your commitment. Join a community of writers who share your dedication and help you develop as a writer. Discover what it takes to be published. Be inspired as you read exemplary works of literature. And learn from respected instructors who can help you stand out from the competition for a coveted place in an M.F.A. writing program.

Curriculum Requirements
The curriculum consists of 7 courses for a minimum of 14 semester units (210 hours of instruction), which includes 2 required courses and 5 restricted electives selected from two categories: literature (2 workshops) and writing (3 workshops).

Required Courses
- The Craft of Writing X421 (offered every term and online)
- Writing Skills Workshop X13 (offered every term and online)

Literature and Writing Workshop Electives
For a complete list of electives available this term, please visit extension.berkeley.edu/cert/writing.html.

Learn More and View the Brochure
extension.berkeley.edu/cert/writing.html
(510) 642-6362
letters@unex.berkeley.edu

Enroll using EDP 022466
One-to-One Mentored Writing Study

This course is especially suited for writers who seek to revise a work for publication or to complete a portfolio for submission to a writing program. Get individual feedback on your short works of fiction or nonfiction. Submit your writing for review by an instructor and then meet with the instructor—either in person or by e-mail—for critique sessions tailored specifically to your needs. An initial meeting with the instructor allows you to discuss specific goals for your prose, and subsequent meetings help you pursue those goals in a structured setting at your own pace. Enrollment is limited to students who have taken courses, or their equivalent, in the Post-Baccalaureate Certificate Program in Writing. Prerequisite: You must be proficient in English and have a solid grasp of English grammar.

For information on course enrollment, please contact the Writing department at (510) 642-6362 or letters@unex.berkeley.edu.

Instructor Deborah Lichtman, Ph.D., a former associate professor of writing at the University of San Francisco, has taught courses in writing, literature, and teaching writing. For eight years, she directed the Master of Fine Arts in Writing Program at the University of San Francisco. She holds a doctorate in English from UC Berkeley and has taught at UC Berkeley and Mills College.

Effective Writing in the Workplace

X456 • 1 semester unit in English

Whether you’re writing a memo to your boss or a letter to the editor, it is crucial to craft your argument clearly and persuasively. Build confidence by improving your writing’s organization, logic, and style so that whatever kind of writing your work requires, you can get your point across more eloquently and quickly. Delve into the details of the writing process: identifying an audience, choosing the best structure, and revising early drafts of your work. This course meets every other week. Enrollment is limited. Prerequisite: Students must be proficient in English and have a solid grasp of English grammar.

EDP 016345
Margaret Steen, M.J., Extension Honored Instructor
5 meetings
Tuesdays, 9 am–12 pm
March 8–May 3 (no meeting March 15 and 29 and April 5 and 26)
San Francisco: Art and Design Center • $375

NEW THIS TERM
Successful Blogging

X464 • 1 semester unit in Journalism

Do you want to build interest in your business services? Share your perspective? Or do you just want to keep friends informed of your adventures? Blogging may offer the opportunity you need. Get set up with a free WordPress blogging site, and learn the conventions and etiquette of the blogosphere. Explore how to sharpen your prose in a way that will attract and build an audience, and learn how to optimize your site for search engines.

EDP 016899
Laird Harrison, B.A.
5 meetings
Mondays, 6:30–9:30 pm
April 25–May 23
San Francisco: Downtown Center • $375

Journalism Workshop

X473 • 2 semester units in Journalism

An elective in the Post-Baccalaureate Certificate Program in Writing

Journalism is undergoing historic change as citizen reporters publish on the Internet while mainstream news organizations race to add interactivity, context, and diversity to their traditional focus on accuracy. Get a practical, task-based introduction to news writing and reporting, learning standards embraced by the best media practitioners, old and new. Study story selection and planning. Learn how to develop sources; interview and research; write fast, vivid prose; and revise and edit. You also get an introduction to multimedia and blogging.

EDP 016808
Thomas Abate, M.A.
10 meetings
Tuesdays, 7–10 pm
March 29–May 31
San Francisco: Art and Design Center • $525

Writing the Feature Story

X419 • 2 semester units in Journalism

An elective in the Post-Baccalaureate Certificate Program in Writing

Learn how to find, research, and write articles for print or online publications, and discover how freelance writers sell stories that sell. With the instructor’s help, you come up with a nonfiction story idea, do the reporting and interviewing to gather details and quotes, write and revise the article, and submit it to an editor for possible publication. Class participation supplements lectures and writing exercises.

EDP 987488
Margaret Steen, M.J., Extension Honored Instructor
Enroll anytime
Online • $550

Medical Journalism

X479 • 2 semester units in Journalism

An elective in the Post-Baccalaureate Certificate Program in Writing

Learn to identify health news, translate medical jargon, question experts, interview patients, and get published. In addition to many in-class exercises, you write a magazine-style article. Guest speakers introduce aspects of academic writing. Although open to the general public, the class is ideal for health professionals looking to broaden their career options. Enrollment is limited.

EDP 016865
Laird Harrison, B.A.
10 meetings
Wednesdays, 6:30–9:30 pm
February 2–April 6
Berkeley Campus: 2301 Tolman Hall • $525

NEW THIS TERM
Traditional and Self-Publishing Opportunities for Writers

X462 • 1 semester unit in English

Explore the different options for getting a book published. In terms of traditional publishing, learn how a publisher produces, markets, distributes, and sells a book. You also learn about self-publishing and how it differs from traditional publishing. By the end of the course, you are able to determine which option best fits your situation and what steps to take to successfully pursue that option.

EDP 016881
Stephen Albert, M.F.A., and Heather Cameron
5 meetings
Tuesdays, 6:30–9:30 pm
February 22–March 22
San Francisco: Art and Design Center • $375
Fact or Fiction: Reading and Writing the Personal Essay

X473 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

A diatribe against braggarts? A consolation to a lonely wife? An ode to Japanese design? The personal essay genre encompasses it all. In this class, you read across continents and centuries, from Seneca to Sedaris, to discover the joy of the form that marries the logic of nonfiction to the dialogue and drama of fiction. Through a broad range of writers, you survey the connections between social context, thought, and form. You practice in-class writing exercises, craft your own essays, and present your writing for response and the inspiration to rewrite.

EDP 016287
Audrey Ferber, M.F.A.
10 meetings
Wednesdays, 6:30–9:30 pm
January 19–March 23
San Francisco: Art and Design Center • $525

Introduction to Creative Nonfiction

X480 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Creative nonfiction can take many different forms and includes the subgenres of personal essay, memoir, nature and science writing, travel and food writing, and historical and biographical narrative. Learn to master the form and elements of creative nonfiction through reading assignments, writing exercises, and respectful criticism of peer writing in a workshop format. The material you cover applies to a wide array of disciplines, including the humanities, the sciences, and journalism. Enrollment is limited.

EDP 016329
Stephen Albert, M.F.A.
10 meetings
Wednesdays, 6:30–9:30 pm
March 23–May 25
San Francisco: Downtown Center • $525

Creative Nonfiction Workshop

X140 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Learn to apply the techniques of storytelling to nonfiction prose pieces, including personal essays, features, commentaries, reviews, reports, journal entries, and memoirs. Together, the instructor and other participants form your audience, offering support and critical feedback about your pieces. Weekly class discussions and writing assignments focus on story principles such as plot, tension, scene, and dialogue that increase the readability of your work and form your material into publishable pieces.

EDP 867630
Arlene Plevin, M.F.A., Ph.D.
Enroll anytime
Online • $550

NEW THIS TERM

The Well-Crafted Memoir

X461 • 1 semester unit in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Delve deeper into the craft of autobiographical writing, and investigate the apparatus of the well-written memoir. Prepare to discuss character, setting, scene, and point of view. Discover the right balance between narration and reflection, exposition and imagery. Study techniques used by published authors, then try them in your own writing. Compose impromptu pieces and receive feedback to help you develop what you write. Each class includes brief lectures, sample readings, and in-class exercises to help you work with a mix of writing forms and strategies. Enrollment is limited to 18.

EDP 016873
Deborah Lichtman, Ph.D.
6 meetings
Wednesdays, 6:30–9 pm
February 9–March 16
Berkeley Campus: 2304 Tolman Hall • $375

Introductory Composition

X2A • 3 semester units in English

Learn how to compose well-crafted college-level essays by exploring each step in the writing process. In various writing assignments, you gain practice with descriptive, narrative, and other forms of expository writing.

EDP 867648
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $715

Composition and Literature

X2B • 3 semester units in English

Learn the critical-thinking skills that teach you to write about literature with thoughtful analysis, evaluation, and enjoyment of representative literary forms such as short stories, poems, plays, and novels.

Introductory Composition X2A is not a prerequisite for this online course.

EDP 867655
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $715

Writing and Selling Your Personal Essays

An artful personal essay showcases your wit, wisdom, and window on the world. This information-packed one-day workshop takes your essays from ideas to potential publication. The instructor draws on more than 20 years of magazine-essay-writing experience to share tips on style, structure, voice, the use of anecdote, and how to target what different publications want. Writers and editors share their expertise and perspectives in a panel about breaking into a variety of markets, including the expanding opportunities on the Web.


Caroline Grant, Ph.D., is the editor-in-chief and a columnist for LiteraryMama.com. She is also coeditor of the anthology Mama, Ph.D.: Women Write About Motherhood and Academic Life (Rutgers University Press, 2008).

Kate Moses is coeditor of the essay anthologies Because I Said So: 33 Mothers Write About Children, Sex, Men, Aging, Faith, Race & Themselves (HarperCollins, 2005) and Mothers Who Think: Tales of Real-Life Parenthood (Villard, 1999). A former senior editor and staff writer at Salon, Moses is also the author of Wintering: A Novel of Sylvia Plath (St. Martin’s, 2003) and Cakewalk: A Memoir (Dial, 2010).


EDP 016360
Elizabeth Fishel, program coordinator, has contributed to Vogue and O, the Oprah Magazine, among others. She was a contributing editor at Child magazine, where her series “Through the Eyes of a Child” was nominated for a National Magazine Award. Fishel is the author of four nonfiction books.

1 meeting
Saturday, 10 am–5 pm
February 12
Berkeley: Golden Bear Center • $250

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| Writing, Editing, and Technical Communication | 230 |
Online Course Information

Art and Design

Creating Websites with HTML
X453.1 • 2 semester units in Computer Science
Recipient of the Distinguished Course Award from the University Continuing Education Association (UCEA); an elective in the Professional Sequence in Graphic Design
HTML is the universal language that underpins every page displayed on the Web. Using a straightforward, step-by-step approach, you build pages of increasing sophistication and design, acquiring a sound working knowledge of HTML and Web design.
EDP 877985
Julia Ann Smith, Ph.D.
Enroll anytime
Online • $595

The Art of Film
X20 • 3 semester units in Film Studies
An elective in the Post-Baccalaureate Certificate in Visual Arts
Learn the techniques of evaluating and appreciating films. Surveying a range of classic and modern works, you not only learn to recognize what makes a well-crafted motion picture but also discover how motion pictures are made, and investigate current film theories. Topics include the handling of space and time in motion pictures, as well as the history and uses of sound, editing, performance, directing, narrative style, and screenwriting. You are responsible for renting and viewing films as part of this course.
EDP 867739
L. Thomas Pollard, Ph.D.
Enroll anytime
Online • $715

Landscape Architecture

Gardens, Parks, and Urban Open Spaces I
X416 • 3 semester units in Landscape Architecture
A requirement in the Certificate Program in Landscape Architecture
Examine the development of the built environment in terms of landscape architecture, architecture, urban design, and their interrelationship. Topics include the influences of Egypt, Mesopotamia, Greece, and Rome; Islamic achievements in Asia; the medieval landscape in Europe; urban planning during the Italian Renaissance; the gardens of Eastern Asia; the emergence and evolution of public parks and open spaces; and contemporary issues. The emphasis throughout the course is on the evolution and growth of the profession of landscape architecture.
EDP 846238
Elizabeth Boults, M.L.A.
January 18–April 12
Online • $820

Behavioral and Health Sciences

Counseling and Psychotherapy
Ethical Decision Making in Complex Cases
0.6 ceu • 6 hours CE credit: BRN, LCSW/MFT, and psychologists
Satisfies the law and ethics course requirement for psychologists, MFTs, and LCSWs that is required during each license renewal cycle
Clinical dilemmas can present mental health professionals with circumstances in which they may have no clear legal, ethical, or policy directives to guide them. This highly interactive workshop, designed by the American Psychological Association, teaches you a model to use in making sound, ethical decisions and provides practice in using the model with difficult cases.
EDP 846170
Joanie Gillispie, Ph.D.
January 18–February 1
Online • $219
EDP 846212
Joanie Gillispie, Ph.D.
February 15–March 1
Online • $219
EDP 846220
Joanie Gillispie, Ph.D.
March 15–March 29
Online • $219
Online

Public Health and Health Management

General Nutrition
X18 • 3 semester units in Nutritional Sciences

Intended for students in health-related careers or those who want a better understanding of the subject, the course teaches you to critically examine many of the popular myths about nutrition and gain a foundation for making wise nutritional choices. Learn about dietary nutrients and toxicants and the role of nutrition in optimal health. Topics include macro- and micronutrient needs; how to determine individual caloric and nutrient needs; digestion and absorption; nutrient requirements in various stages of human development; and current food issues, including food safety.

A background in high school or introductory college-level chemistry, biology, or physiology is recommended but not required.

EDP 877530
Alanna Nimau Vigil, M.S., RD
Enroll anytime
Online, proctored final exam • $770

General Psychology

Abnormal Psychology

X146 • 3 semester units in Psychology
45 hours CE credit: BRN

Designed for anyone interested in the way humans perceive and respond to experiences, and especially for people considering careers in psychology, this course helps you learn the dynamics and prevention of abnormal behavior, including neuroses, psychoses, character disorders, psychosomatic reactions, schizophrenia, and other abnormal personality patterns.

EDP 867564
Darrel Dean Richards, Ph.D.
Enroll anytime
Online, proctored final exam • $730

General Psychology

XBW1 • 3 semester units in Psychology
45 hours CE credit: BRN
(formerly X81)

Important: Special academic policies apply to XB and XBW courses. See p. 238.

Psychology is the scientific study of behavior. In a sense, everyone is a psychologist: People explore their surroundings, observe themselves and others, and try to understand and explain their own and other people’s behavior. Get an introduction to the principal areas, problems, and concepts of psychology, including topics such as development, learning, perceptions, emotion, personality, stress, and pathology. Demonstrate your understanding of the course topics through a research paper and final exam.

EDP 897819
Gwynne Pacheco, Ed.D.
Enroll anytime
Online, proctored final exam • $730

Adolescent Psychology

X139.1 • 3 semester units in Psychology
45 hours CE credit: BRN

Explore current theories about the physical, mental, emotional, social, and personality characteristics of adolescents. By examining research findings from growth studies in this and other cultures, you learn to identify the roles American adolescents play in the home, school, social groups, and the community.

EDP 867556
Darrel Dean Richards, Ph.D.
Enroll anytime
Online, proctored final exam • $730

Psychology of Communication

X156.1 • 3 semester units in Behavioral Health and Science
45 hours CE credit: BRN

Recipient of the Meritorious Award for the Best College-Level Distance Course from the University Continuing Education Association (UCEA)

Understand the processes of perception, cognition, motivation, emotion, learning, memory, and creativity in combination with social roles, group affiliations, and cultural backgrounds to explore how people communicate to themselves, to other individuals, within small groups, within large organizations, with mass communication, and in cross-cultural communications.

Prerequisite: You must have completed lower-division coursework in general psychology prior to enrolling in this course.

EDP 867572
Michael Swett, Ph.D.
Enroll anytime
Online, proctored final exam • $730
On Online, proctored final exam
Enroll anytime
EDP 897918
212
FOR COMPLETE COURSE AND SCHEDULE INFORMATION

Online, proctored final exam
Enroll anytime
EDP 897918

Introduction to Managerial Accounting
XBW102B • 3 semester units in Business Administration
(formerly XB102B)
A requirement in the Certificate Program in Accounting.
Important: Special academic policies apply to XB and XBW courses. See p. 238.
This course introduces the concepts, theory, and practice of the cost control function of
management. The purpose of this course is to show you what information is needed within
an organization, where this information can be obtained, and how managers can use this
information to plan, control, and make decisions. Topics include cost behavior and forecasting,
capital budgeting, activity-based costing and ABC management, cost-volume analysis,
tactical decision making, and transfer pricing.
XB102A Introduction to Financial Accounting or equivalent is strongly recommended.
EDP 897942
Martha S. Doran, Ph.D., CPA
Online, proctored final exam • $770

Intermediate Financial Accounting I
X421.1 • 3 semester units in Business Administration
Build on the financial accounting concepts and principles covered in Introduction to Financial
Accounting XB102A. Following an in-depth review of the accounting environment and the
nature of accounting information, you study the time value of money concepts and explore basic
financial statements. Detailed attention is given to how enterprises account for assets: cash,
accounts receivable, inventories, property and equipment, intangible assets, and
long-term investments.
Prerequisite: Introduction to Financial Accounting XB102A or equivalent
EDP 846436
Michael Tydalska, CPA
January 18–April 12
Online, proctored final exam • $820

Intermediate Financial Accounting II
X421.2 • 3 semester units in Business Administration
A requirement in the Certificate Program in Accounting
Expand upon the financial accounting concepts and principles developed in Intermediate
Financial Accounting I X421.1, and learn how enterprises account for liabilities and equity
accounts, including current and noncurrent liabilities, leases, pensions, income taxes,
contributed capital, retained earnings, and stock options. Additional topics include earnings per
share, the statement of cash flows, accounting changes, and error corrections.
Prerequisites: Introduction to Financial Accounting XB102A or equivalent. This course typically follows
Intermediate Financial Accounting I X421.1, but that course is not a prerequisite.
EDP 846469
Kelly Pope, Ph.D.
January 18–April 12
Online, proctored final exam • $820

Advanced Financial Accounting
X421.3 • 3 semester units in Business Administration
A requirement in the Certificate Program in Accounting,
Financial and Business Analysts Specialization
Get a comprehensive understanding of consolidated financial statements and how to prepare
them. The focus is on the accounting principles, methods, and techniques that relate to particular
types of business and nonbusiness entities, including corporations, partnerships, government
units, estates and trusts, and nonprofit organizations. Limited time is devoted to
exploring certain tax aspects of consolidated financial statements.
Prerequisite: Substantial accounting background
EDP 897728
Joseph McPeak, M.S., M.B.A., CPA,
Extension Honored Instructor
Online, proctored final exam • $770

Auditing
XBW126 • 4 semester units in Business Administration
(formerly XB126)
Important: Special academic policies apply to XB and XBW courses. See p. 238.
Examine the professional responsibilities of auditors, the design of audits, technology and sampling
approaches, appropriate tests of internal controls, substantive tests, and other responsibilities of
certified public accountants. You also prepare for the auditing section of the CPA exam and work as
part of a team on an audit plan.
Prerequisites: Intermediate Financial Accounting I
X421.1 and Intermediate Financial Accounting II X421.2,
equivalent experience, or consent of instructor
EDP 897926
Andrew Barnett, Ph.D., CPA,
Extension Honored Instructor
Online, proctored final exam • $770
Financial Statement Analysis
X419.2 • 2 semester units in Business Administration
A requirement in the certificate programs in Finance, Corporate Finance Specialization, and in Accounting, Accounting for Financial and Business Analysts Specialization
This course focuses on the effective analysis of financial statements, integrating the concepts and principles you learned in previous accounting courses. You examine the analytical tools for assessing a company’s performance, the concept of quality of earnings, approaches to valuation, and other issues.
Prerequisites: Introduction to Financial Accounting XB102A, access to Microsoft Excel, and basic Excel skills
EDP 897074
Donald R. Byrne, M.B.A., Ph.D.
Enroll anytime
Online, proctored final exam • $715

Taxation for Corporations and Other Flow-Through Entities
X419.5 • 3 semester units in Business Administration
A requirement in the Certificate Program in Accounting, Accounting for Controllers Specialization
This course provides a general description of the major provisions of the tax laws for filing in calendar years 2009–10. You study the taxation of corporations, “S” corporations, partnership taxation, income taxation of estates, trusts and gifts, and tax accounting methods and periods. You also review rules governing formation, operation, and disposition of partnerships and corporations.
EDP 897538
Joseph McPeak, M.S., M.B.A., CPA, Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $770

Cost Accounting
X419 • 2 semester units in Business Administration
A requirement in the Certificate Program in Accounting, Accounting for Controllers Specialization
Take on an intensive study covering basic cost accumulation systems and refinements used to determine costs of products or activities in various types of enterprises. Prepare to emphasize managerial cost analysis and management decision planning.
Prerequisites: Introduction to Financial Accounting XB102A and Managerial Accounting XB102B or equivalent
EDP 897603
Joseph McPeak, M.S., M.B.A., CPA,
Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $730

Business Administration
Organization and Management
X490.1 • 2 semester units in Business Administration
A requirement in the Certificate Program in Business Administration; an elective in the Certificate Program in Leadership and Management
Study high-level leadership strategies and gain skills in resolving disputes, managing diversity, and building productive teams. Using case studies and small group discussions, you explore issues such as organizational conflict and power, management development, interpersonal influence, and the advantages and drawbacks of participative management.
EDP 846261
Catherine Pinkas, M.B.A., PMP
January 18–April 12
Online • $735

Essentials of Business
X406.6 • 2 semester units in Business Administration
A requirement in the Certificate Program in Business Administration
This course is an introduction to the goals, processes, and operations of business enterprises for students without any previous business knowledge. The main focus is on the functions that a company must manage effectively to be successful. These include accounting, finance, human resource management, marketing, operations management, and strategic planning. Attention is also given to the legal environment in which businesses operate and the importance of business ethics and corporate citizenship.
EDP 897314
Kevin M. Shea, M.B.A.
Enroll anytime
Online, proctored final exam • $715

International Business
Communicating Across Cultures: Marketing and Sales Challenges Around the World
X495.7 • 2 semester units in Business Administration
An elective in the Certificate Program in Marketing
Global transactions are becoming the norm in business, and marketing and sales professionals face a variety of communications challenges in adapting to the international marketplace. Examine the theories of specific culture-bridging tools and techniques needed by today’s international sales and marketing practitioners.
EDP 897181
Gwynne Pacheco, Ed.D.
Enroll anytime
Online, proctored final exam • $575

Import/Export: Trade Operations
X495.9 • 2 semester units in Business Administration
As economic globalization increases, the potential for companies and individuals to expand markets and increase their sales is greater than ever. For those who embrace importing and exporting opportunities, knowledge of the fundamentals of international merchandise trade is essential. Gain comprehensive knowledge of the mechanics of international trade, including topics such as payment methods, risk analysis, modes of transportation, and import/export documentation.
EDP 897199
Tekle Sebahat, M.B.A., Ph.D.
Enroll anytime
Online • $575

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ONLINE
Business Analysis

Business Analysis Essentials and Planning
X448.1 • 3 semester units in Business Administration

A requirement in the Certificate Program in Business Analysis

Learn business analysis fundamentals as well as the planning and monitoring knowledge areas—the first of the seven generally accepted areas that define the profession’s framework. Discover how practitioners determine and plan which activities are necessary to complete a business analysis effort. Master essential analysis theories that govern the performance of all other business analysis and transformation tasks.

Those who intend to sit for the CBAP® exam should also meet the IIBA® testing requirements.

EDP 846691
Ashley Wright, B.S., M.B.A.
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

EDP 846709
Ashley Wright, B.S., M.B.A.
March 3–April 20
Online, accelerated 8-week format, proctored final exam • $995

Elicitation, Requirements Management, and Communication
X448.2 • 2 semester units in Business Administration

A requirement in the Certificate Program in Business Analysis

Learn how to manage conflicts, issues, and changes to ensure that stakeholders agree on the solution scope and the way requirements are communicated. Study the elicitation knowledge area, which includes details for eliciting business, stakeholder, solution, or transition requirements. You also explore the requirements management and communication knowledge area, which describes the activities and considerations for managing and expressing requirements to a broad and diverse audience. Gain the training and knowledge necessary to become a Certified Business Analyst Professional (CBAP).

Students should be familiar with business operations, and those who intend to sit for the CBAP® exam should also meet IIBA® testing requirements.

EDP 846725
David Zhu, B.S., PMP, CISA
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

EDP 846717
David Zhu, B.S., PMP, CISA
March 3–April 20
Online, accelerated 8-week format, proctored final exam • $995

NEW THIS TERM

Enterprise and Requirements Analysis
X448.3 • 3 semester units in Business Administration

A requirement in the Certificate Program in Business Analysis

Master the ability to identify a business need using enterprise and requirements analysis, which lets you refine and clarify the definition of that need and define a solution scope that can be feasibly implemented by the business. Learn how enterprise analysis describes problem definition and analysis, business case development, feasibility studies, and the definition of the solution scope. Study how requirements analysis explains how business analysts prioritize stakeholder and solution requirements to better implement solutions. Gain the training and knowledge necessary to become a Certified Business Analyst Professional (CBAP®).

Those who intend to sit for the CBAP® exam should also meet the IIBA® testing requirements.

EDP 846766
Rohini Patel
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

EDP 846741
Rohini Patel
March 3–April 28
Online, accelerated 8-week format, proctored final exam • $995

Solution Assessment and Validation, Underlying Competencies
X448.4 • 2 semester units in Business Administration

A requirement in the Certificate Program in Business Analysis

Learn to assess proposed solutions to determine which best fit the business need, as well as to identify gaps and shortcomings in solutions and determine necessary work-arounds or changes to the solution. Learn how business analysts assess deployed solutions to see how well they met the original need of the sponsoring organizations. Examine underlying competencies such as behaviors, knowledge, and other characteristics that support the effective performance of business analysis. Gain the training and knowledge necessary to become a Certified Business Analyst Professional (CBAP®).

Those who intend to sit for the CBAP® exam should also meet the IIBA® testing requirements.

EDP 846758
Ashley Wright, M.S., M.B.A.
January 4–March 1
Online, accelerated 8-week format, proctored final exam • $995

EDP 846774
Ashley Wright, M.S., M.B.A.
March 3–April 28
Online, accelerated 8-week format, proctored final exam • $995

Business Communication

Business Writing Review
X455 • 1 semester unit in English

Your skill in crafting letters, e-mails, memos, and reports determines how effectively you deliver your message to, or on behalf of, your organization. In this course, you refresh and refine your business writing skills by learning to edit your writing, identify your grammar and punctuation problems, and organize your ideas for clarity. You review the basics of composing effective business letters, memos, and reports, as well as how to find the style and format that fits your subject and audience.

EDP 877852
Margaret Steen, M.J., Extension Honored Instructor
Enroll anytime
Online • $550
**Economics**

**Essentials of Economics**
X402.8 • 2 semester units in Economics

*A requirement in the Certificate Program in Business Administration*

Get an overview of general economic issues, principles, and concepts in both microeconomics and macroeconomics. Topics include understanding how the economy works, making better business decisions, and comprehending the powerful lessons of the economic approach. *Enrollment is limited.*

EDP 897694
Martin A. Medeiros, M.A.,
Extension Honored Instructor
Enroll anytime
Online • $745

**Economic Indicators: Making Sense of Market Data**
X408.4 • 2 semester units in Business Administration

*Recipient of the Distinguished Course Award for excellence in distance learning from the University Continuing Education Association (UCEA)*

Focus on key economic indicators that are monitored closely by financial analysts, economists, and governments around the world. Examine the business cycle to place each indicator in a context that allows you to understand seemingly contradictory market reactions to newly released indicators. Upon completion, gain the ability to critically analyze news and data from financial and economic news sources, as well as assess what impact a market reaction to a newly released indicator has on a particular situation.

EDP 897041
Martin A. Medeiros, M.A.,
Extension Honored Instructor
Enroll anytime
Online • $635

**Introduction to Microeconomics**
X2 • 3 semester units in Economics

Study how markets work, and gain a real understanding of the role of economics in business, public, and private decision making. Learn ways to think about how humans allocate resources, including markets and prices, consumer and producer behavior, and risk and cost measurement. Use this knowledge for further study in economics, or apply it in your everyday business dealings to make more effective decisions.

EDP 877050
Edward T. Derbin, M.A., M.B.A.
Enroll anytime
Online, proctored final exam • $715

**Introduction to Macroeconomics**
X3 • 3 semester units in Economics

This course introduces basic concepts and tools used in macroeconomic analysis: the theory, measurement, and determination of national income; business cycles; the multiplier; fiscal policy; budget deficits, and the national debt; aggregate supply and aggregate demand; exchange rates and balance of payments accounts; and stabilization policy for unemployment and inflation. You may take Introduction to Microeconomics X2 concurrently with this course.

EDP 877670
Larry O’Connell, M.A., M.S., M.B.A.
Enroll anytime
Online, proctored final exam • $715

**Entrepreneurship and Small Business**

**Small Business Management**
X105 • 3 semester units in Business Administration

Gain the skills and knowledge you need to start a small business. Learn to coordinate your operations to increase your efficiency. Discover what technologies can help your business compete in the marketplace. Finally, learn how to best represent your business to potential investors and bankers if you are looking to expand.

EDP 877068
Judith L. Forbes, M.B.A., Ph.D.
Enroll anytime
Online • $770

**Finance**

**Basic Corporate Finance**
X430.1 • 2 semester units in Business Administration

*A requirement in the Certificate Program in Accounting, Accounting for Financial and Business Analysts Specialization, an elective in the Certificate Program in Finance*

This course serves as a prerequisite for most of the other finance courses offered by UC Berkeley Extension. Get an introduction to the concepts and methods financial managers use to make effective investing and financing decisions, and begin to explore the ways in which value is created and measured. You devote specific attention to the financial management context, the time value of money, risk and return, the cost of capital, the valuation of stocks and bonds, capital budgeting decision analysis tools, the impact of financial leverage on cost of capital and valuation, dividend policy, and an overview of financial statement analysis.

*Prerequisites: One course in economics and one in financial accounting or consent of instructor. Basic Financial Mathematics and Financial Calculators, or equivalent skills, is recommended.*

EDP 846493
Marc Hyman, M.B.A.
January 18–April 12
Online, proctored final exam • $735

EDP 846519
Brad Fox, M.B.A.
January 25–April 19
Online, proctored final exam • $735

**Intermediate Corporate Finance**
X444.1 • 2 semester units in Business Administration

*A requirement in the Certificate Program in Finance*

This course, a continuation of Basic Corporate Finance X430.1, rounds out the comprehensive overview of corporate finance topics and examines the concepts, techniques, and tools that financial managers use in their attempts to make effective investing, financing, and working capital management decisions. You devote specific attention to advanced capital budgeting topics, financing decisions, working capital management, and multinational finance.

*Prerequisites: Basic Corporate Finance X430.1. You should also be proficient with computer spreadsheets and basic financial mathematics and financial calculators.*

EDP 897611
Lawrence Cox, B.S., M.B.A.
Enroll anytime
Online, proctored final exam • $715
**Hands-On Corporate Financial Analysis and Modeling**

X435.6 • 1 semester unit in Business Administration

A requirement in the Certificate Program in Finance

This hands-on computer course provides you with the skills to apply the theories, concepts, and tools covered in Basic Corporate Finance X430.1 and Intermediate Corporate Finance X444.1 to the development of spreadsheet knowledge that you can use for effective financial analysis and decision making. Topics include developing spreadsheet skills for financial statement analysis and forecasting, stock and bond valuation, target capital structure estimation, and capital budgeting. **Note:** The online course requires access to Microsoft Excel 2003 or later.

**Prerequisites:** Basic Corporate Finance X430.1, completion of or concurrent enrollment in Intermediate Corporate Finance X444.1, and basic proficiency with computer spreadsheets

EDP 897470
Catherine Pinkas, M.B.A., PMP
Enroll anytime
Online • $575

**Advanced Corporate Finance**

X431.5 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Corporate Finance Specialization

Apply essential financial tools and techniques in a series of case studies selected to illustrate the analysis of critical corporate finance decisions. The cases deal with topics such as valuation, capital issues, dividend policy, mergers and acquisitions, derivative instruments and risk management, and ethical issues. The case studies further examine the theoretical concepts and models of finance and how they apply to realistic situations.

**Prerequisites:** Basic Corporate Finance X430.1 and Intermediate Corporate Finance X444.1. You should also be proficient with computer spreadsheets and financial calculators.

EDP 897801
David Byrne, Ph.D.
Enroll anytime
Online, proctored final exam • $715

**Business Valuation**

X431.9 • 2 semester units in Business Administration

A requirement in the certificate programs in Finance, Corporate Finance Specialization, and in Accounting, Accounting for Financial and Business Analysts Specialization; an elective in the Professional Sequence in Personal Financial Planning

Learn to apply financial and economic theory to investment, financing, and dividend decisions in order to identify ways to maximize shareholder returns. Practical methods to determine costs of capital, total invested capital, free cash flow, and economic profits are used in the valuation analysis for mergers and acquisitions, divestitures, capital budgeting, initial public offerings/private placements, leveraged buyouts, performance-based executive compensation, agency costs, control premiums/costs of marketability, and real options.

**Prerequisites:** Basic Corporate Finance X430.1, Introduction to Financial Accounting X8102A, Accounting for Managers X421.5, or consent of instructor and professional experience

EDP 897108
Donald R. Byrne, M.B.A., Ph.D.
Enroll anytime
Online, proctored final exam • $715

**Options and Other Financial Derivatives**

X435.1 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance, Investment Management specialization

Get a comprehensive understanding of how to analyze and use options and other related derivatives. Discuss case studies of real-life examples in class to demonstrate and evaluate equity, index options, and flex options. Through class discussions, you learn about the tools and develop the skills necessary to evaluate and apply options and derivatives for income and investment hedging purposes, as well as income and speculation purposes. No prior knowledge of options and futures markets is assumed.

**Prerequisite:** Basic Corporate Finance X430.1 or equivalent

EDP 897124
Richard Lehman, M.B.A.
Enroll anytime
Online, proctored final exam • $715

**International Finance**

X430.8 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance

This course covers international finance from both corporate and international banking viewpoints, as well as financial constraints on international business and differences between domestic and international environments. You examine the international monetary system, the differences between foreign trade and foreign investments, international sales terms, measurement and management of foreign-exchange exposure, international financial markets and banking, import/export financing, current-asset management, and international taxation.

**Prerequisite:** Basic Corporate Finance X430.1 or equivalent

EDP 897629
Grace Kalil, M.B.A.
Enroll anytime
Online, proctored final exam • $715

**Fundamentals of Risk Management**

X436.5 • 2 semester units in Business Administration

A requirement in the Certificate Program in Finance and an elective in the Professional Sequence in Personal Financial Planning

Learn the fundamentals of financial risk management as it is practiced by corporate treasury staffs and investment managers. You focus on current theory, best practices, and financial products that can be used for risk mitigation. You get an introduction to this highly technical field with the purpose of developing an understanding of the primary objectives of risk management and gain insight into the risk-mitigation process.

EDP 846386
Lawrence Cox, M.B.A.
January 18–April 12
Online, proctored final exam • $725
Paralegal Studies

COURSE INFORMATION
(510) 642-4231
business@unex.berkeley.edu
extension.berkeley.edu/paralegal

Essential Paralegal Studies Part I: Foundational Skills
X418 • 2 semester units in Law
A requirement in the Paralegal Studies Program
Study the foundational paralegal qualities most sought by attorneys and law firms. Learn various aspects of paralegal skills, including legal terminology, court structure, legal ethics, evidence, investigation, interviewing, analysis, and other areas relevant to becoming an excellent paralegal. Note: Online section must be completed within three months of enrollment date.
EDP 317037
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $1,750

Essential Paralegal Studies Part II: Authority, Research, and Writing
X419 • 2 semester units in Law
A requirement in the Paralegal Studies Program
Study the advanced paralegal skills most sought by attorneys and law firms. Learn all aspects of advanced paralegalism, including legal research, legal writing, breaking rules into elements, applying rules to facts, pleading preparation, discovery coordination, digesting discovery documents, file maintenance, billable hours, form manipulation, electronic research, motion preparation, and other areas relevant to becoming an excellent paralegal. Note: Online section must be completed within three months of enrollment date.
Prerequisite: Essential Paralegal Studies Part I: Foundational Skills X418
EDP 317081
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $1,750

Paralegal Tort Law
X403 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Get an overview of personal injury, product liability, and malpractice law. Examine the intentional torts of battery, assault, false imprisonment, intentional infliction of mental distress, trespass to chattel, trespass to property, and conversion, as well as analysis of negligence, breach of duty, causation and damages, liability issues and defenses, and malpractice. Note: Online section must be completed within two months of enrollment date.
EDP 307991
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Contract Law
X405 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Learn how to form effective legal contracts, how contracts are performed, the remedies for nonperformance or breach of contract, and third-party contracts. Contracts are involved in virtually every field of law, and the contract drafting, analysis, and litigation skills you learn in this course can be applied to a wide variety of legal situations. You examine different kinds of contracts and draft a contract as part of your study. Note: Online section must be completed within two months of enrollment date.
EDP 317032
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Business Law
X404 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Gain an accessible and straightforward understanding of the law of business organizations. Study relevant examples from the day-to-day practices of business lawyers and their paralegals. You learn the four basic business organizations: sole proprietorships, partnerships, corporations, and limited liability companies. Note: Online section must be completed within two months of enrollment date.
EDP 317024
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Intellectual Property Law
X409 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Explore trademark, copyright, and patent law as it relates to a paralegal’s role within intellectual property representation. By the end of the course, you gain the quantifiable skills in the area of intellectual property law to function under an attorney’s supervision. Specifically, you learn terminology relevant to the area of intellectual property law and are able to identify the elements of trademark procedures, including infringement. Learn to identify the elements of copyright procedures, including patent application, ownership, transfer, and infringement. Note: Online section must be completed within two months of enrollment date.
EDP 317065
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal California Procedures
X407 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Study California court rules and procedures, as well as how to properly access and cite those rules and procedures. You learn strategies to locate rules relevant to a variety of situations so that you don’t have to rely on mere memorization. You investigate documents and filing procedures in California so you are able to assist attorneys in identifying and applying trial court rules. You also learn about the ongoing educational requirements for paralegals in California. Note: Online section must be completed within two months of enrollment date.
EDP 317057
Julie Goren, J.D.
Enroll anytime
Online • $875

Paralegal Criminal Law
X406 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Learn how to assist a criminal attorney as a paralegal. You study substantive and procedural criminal law and learn to identify the elements of and defenses against criminal charges. You learn about levels of criminal intent, the rationale of criminal law, the purpose of criminal punishment, and the role that the U.S. Constitution plays in the criminal justice system. Note: Online section must be completed within two months of enrollment date.
EDP 307983
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875

Paralegal Family Law
X410 • 1 semester unit in Law
An elective in the Paralegal Studies Program
Learn the paralegal’s role in a family law practice. Topics covered include jurisdictional issues, child custody and visitation matters, child support issues, property rights and division, and spousal support considerations. You also examine issues of traditional marriage and alternative marriage, as well as paternity proceedings, adoption, and surrogacy rights. Note: Online section must be completed within two months of enrollment date.
EDP 317016
Tammi Clearfield, J.D., M.S.
Enroll anytime
Online • $875
Human Resources

Essentials of Human Resources
X450.1 • 2 semester units in Business Administration
A requirement in the Certificate Program in Human Resource Management

Explore the six core areas of human resources: management practices; selection and placement; training and development; compensation and benefits; employee and labor relations; and health, safety, and security. Learn how these areas function within an organization, as well as how they relate to each other. You also investigate the growing multitude of laws, rules, and regulations that affect the California employer and the role of the human resources professional in an organizational setting.

EDP 846287
Catherine McKnight, M.A.
January 18–April 12
Online • $680

Employee Benefit Plans
X450 • 2 semester units in Business Administration
An elective in the Certificate Program in Human Resource Management

Get a general introduction to employee benefit plans. Study the most common types of discretionary benefits, and learn how they are selected and administered. The instructor outlines legal requirements, administrative problems, and available options, as well as government-mandated plans such as workers’ compensation and Social Security. You examine important policy issues on sick leave, vacation, jury duty, and leaves of absence and learn how they are related to organizational culture and policy. You pay special attention to the effects of tax reform in benefits planning.

EDP 897157
Richard K. Takahashi, M.B.A.
Enroll anytime
Online • $695

Law

Principles of Business Law
X410.1 • 2 semester units in Business Administration
A requirement in the Certificate Program in Accounting, Accounting for Controllers Specialization

People who want to be successful in business or real estate need to know how to deal with legal issues and when to refer questions to an attorney. Learn to identify the issues and know when you have a legal problem—and, if so, what it is. You survey California law to better understand its jurisdiction and procedures under its court system. You also study basic principles of the laws of contracts, agency, partnership, corporations, and limited liability companies, as well as employment and intellectual property.

EDP 846279
Jason Lum, J.D.
January 18–April 12
Online • $715

Intellectual Property Law
X412 • 2 semester units in Business Administration

Examine patent, copyright, trademark, and trade-secret law in the high-tech commercial sector. You pay special attention to the Internet, software licensing, recent technological developments, and recent trends in the legislative and legal arenas. Anyone involved in the creation, acquisition, use, sale, marketing, licensing, and ownership of intellectual property can benefit greatly from this course.

EDP 897066
Brien C. Walton, LL.M., J.D.
Enroll anytime
Online • $715

Marketing

Introduction to Marketing
X460.1 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing and the Certificate Program in Business Administration; an elective in the Certificate Program in Leadership and Management

Learn key information regarding marketing concepts, terminology, and practices that you can use to increase your organization’s profitability. You study consumer, industrial, and service marketing; market selection; product planning; pricing and distribution; and the integration of marketing with other business activities.

EDP 846683
Woody Alexander, M.B.A.
January 18–April 12
Online • $735

Marketing Research: Concepts and Techniques
X460.6 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing and in the Professional Sequence in Marketing Metrics

Learn to conduct focus groups and surveys, both via the Internet and offline; design questionnaires; interpret data; and present findings. Expect to place special emphasis on using market research to develop new products and improve service, as well as on how to target the most profitable customers.

EDP 846188
Nicki Shovar, Ph.D.
January 18–April 12
Online • $720

Strategic Marketing
X415 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing

Learn to market new and existing products and services for growth and increased profitability. Also learn how to use the latest and most sophisticated marketing strategies to create a sustainable competitive advantage. Topics include strategy formulation, linking strategy and tactics, brand positioning, relationship marketing, thriving in competitive markets, and avoiding commoditization.

EDP 846675
Suzanne Powers, M.B.A.
January 18–April 12
Online • $720

Online Certificate Program in Marketing

With a marketing certificate from UC Berkeley Extension, you gain the crucial skills and credential to advance your career. Get an overview with courses on marketing research, planning, and strategic management. Or specialize in integrated marketing communications.

See p. 79 for complete certificate details.
Strategic Marketing 2.0—Social Media and Other Innovative Technologies

X464.5 • 2 semester units in Business Administration
A requirement in the Certificate Program in Marketing
Master the next generation of strategic marketing planning and tactics made possible by the latest media channels and technologies. Learn how to establish realistic business and performance goals and systematically evaluate new technologies, as well as evaluate in-market results against specific return-on-investment metrics. You also gain the ability to strategically plan and cost-efficiently execute new-channel programs in tandem with more conventional marketing approaches.

EDP 846196
Susan Gaide, M.B.A.
January 18–April 12
Online • $720

Strategic Marketing Planning

X411.3 • 2 semester units in Business Administration
An elective in the Certificate Program in Marketing
Learn how to develop and write a comprehensive marketing plan. Examine how marketing plans change with the life cycle or market conditions of a product or service. You develop a model marketing plan that includes an analysis of competition, pricing, promotion, distribution, and the value proposition. Prepare to place special emphasis on adopting and maintaining a customer orientation when creating marketing plans.

EDP 897454
Woody Alexander, M.B.A.
Enroll anytime
Online, proctored final exam • $715

Integrated Marketing Communications

Integrated Marketing Communications

X466.1 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Successful marketers maximize their sales opportunities by using integrated marketing communications (IMC), which include advertising, personal selling, promotion, direct marketing, public relations, customer relationship management (CRM), and electronic media. In this course, you prepare an integrated marketing communications plan.

Prerequisites: Introduction to Advertising X401.7 or consent of instructor

EDP 846873
Peter Alexander, Ph.D., M.B.A., Extension Honored Instructor
January 18–April 12
Online • $720

Introduction to Advertising

Introduction to Advertising

X401.7 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Learn the role of advertising in the marketing plan, as well as different types of advertising and media selection; buyer behavior; ad creation; media planning; measuring effectiveness; and relations between the client, the agency, and people in the media.

EDP 897447
Deborah Medsker, B.A.
Enroll anytime
Online, proctored final exam • $715

Introduction to Public Relations

Introduction to Public Relations

X466 • 2 semester units in Business Administration
A requirement in the Professional Sequence in Integrated Marketing Communications; an elective in the Certificate Program in Marketing
Learn public relations strategies that you can implement quickly and inexpensively, including how to create public relations materials such as positioning statements and press releases. You also get hands-on experience solving problems, identifying solutions, and understanding reporters’ interviewing styles. With the public relations strategies you learn in this course, you can help your company or organization sell products to the general public and improve its corporate image.

EDP 897462
Larry Flegle, D.B.A., M.A., CSE, CEC, MAPPA, MPM, CIPM
Enroll anytime
Online, proctored final exam • $715

Personal Financial Planning

Survey of Personal Financial Planning

X433 • 2 semester units in Business Administration
2 CE units for life agents—LX
A requirement in the Professional Sequence in Personal Financial Planning
Learn to prepare a comprehensive financial plan for an individual client. Master the technical skills required in areas such as income tax, investments, insurance, employment benefits, estate planning, and mathematical analysis. Learn how to provide comprehensive service and create an optimum client-practitioner relationship. Individuals who wish to learn about financial planning fundamentals for themselves can also benefit from this course, though it is geared toward those who are pursuing professional certification.

We recommend that you take Basic Financial Mathematics and Financial Calculators before enrolling in Survey of Personal Financial Planning, if you don’t have experience using financial calculators.

EDP 897116
Christina Woo, M.B.A.
Enroll anytime
Online, proctored final exam • $730
Project Management

X470 • 2 semester units in Business Administration
30 pdu: PMI provider 1173


The online course is the recipient of the Outstanding Course Award from the University Continuing Education Association (UCEA).

Proper management plays a crucial role in executing and completing projects efficiently. Get a step-by-step introduction to the project management process, and review the differences between theory and practice. You’ll use the tools and knowledge you acquire to create your own project plan.

EDP 846352
Anthony Minstein, B.A., CPIM, PMP
Extension Honored Instructor
January 4–March 1
Online, accelerated 8-week format • $735

EDP 846360
Mark Angel, B.S., M.B.A., PMP
January 18–April 12
Online • $735

EDP 846527
Alex Brown, PMP, IPMA-C
March 3–April 28
Online, accelerated 8-week format • $735

EDP 846535
Mark Angel, B.S., M.B.A., PMP
March 3–April 28
Online, accelerated 8-week format • $735

Project Procurement Management

X474.3 • 2 semester units in Business Administration
30 pdu: PMI provider 1173


Procurement of products and services is an essential part of a project manager’s responsibilities. Learn the fundamentals of the procurement process, from developing procurement documents and specifications to evaluating vendor proposals, crafting appropriate contracts, and overseeing successful execution of contracts. **Prerequisite:** Project Management X470

EDP 846782
Kenyon D. Potter, J.D., P.E.
January 4–March 1
Online, accelerated 8-week format • $735

EDP 846790
Timothy Donahue-Bombosch, Ph.D.
January 18–April 12
Online • $735

EDP 846808
Catherine Pinkas, M.B.A., PMP
March 3–April 28
Online, accelerated 8-week format • $735

Quality Management

X470.9 • 2 semester units in Business Administration
30 pdu: PMI provider 1173


Get a comprehensive overview of quality management. Understand the philosophies and strategies of prominent quality authorities, and explore ways to implement a management improvement program effectively.

**Prerequisite:** Project Management X470

EDP 846543
Murray R. Millet, M.B.A., M.S.E.E.
January 4–March 1
Online, accelerated 8-week format • $735

EDP 846558
Mark Angel, B.S., M.B.A., PMP
January 18–April 12
Online • $735

EDP 846576
Murray R. Millet, M.B.A., M.S.E.E.
March 3–April 28
Online, accelerated 8-week format • $735

Human Factors and Team Dynamics for Project Management

X469.2 • 3 semester units in Business Administration
45 pdu: PMI provider 1173


Learn the leadership and communication skills needed to promote and support quality management in your organization. Through team-based projects, you also learn how to master the most difficult aspects of quality management: creating, nurturing, and sustaining an organizational climate based on best principles and practices. Discover how quality management ensures that concepts such as teamwork, employee empowerment, and continuous improvement don’t degenerate into buzzwords that increase cynicism and decrease employees’ responsiveness to organizational goals.

**Prerequisites:** Project Management X470

EDP 846295
Catherine McKnight, M.A.
January 4–March 1
Online, accelerated 8-week format • $830

EDP 846303
Catherine McKnight, M.A.
January 18–April 12
Online • $830

EDP 846311
Catherine McKnight, M.A.
March 3–April 28
Online, accelerated 8-week format • $830
Project Risk Management

X440.4 • 2 semester units in Business Administration
30 pdu: PMI provider 1173

A requirement in the Certificate Program in Project Management and in the Professional Sequence in Project Risk Management; an elective in the Certificate Program in Construction Management

Projects today are more time constrained, pose greater technical challenges, and are less likely to have adequate resources than in the past. There are techniques, however, that can help you deal with project risk and recognize and manage potential problems. You learn practical methods for completing difficult projects and how to apply these methods to your own projects.

Prerequisite: Project Management X470

EDP 846329
Madeleine Bronstone, MLHR, PMP
January 4–March 1
Online, accelerated 8-week format • $735

EDP 846337
Anthony Minstein, B.A., CPIM, PMP,
Extension Honored Instructor
January 18–April 12
Online • $735

EDP 846345
Madeleine Bronstone, MLHR, PMP
March 3–April 28
Online, accelerated 8-week format • $735

Project Planning and Control

X471.9 • 3 semester units in Business Administration
45 pdu: PMI provider 1173

A successful project manager relies on an effective management plan that provides a baseline for monitoring progress, identifying variances, and taking timely action to mitigate the impact of problems. Learn how to create an effective plan and implement it through completion and evaluation. You also explore the tools and techniques you learned in Project Management X470 in greater detail.

Prerequisite: Project Management X470

EDP 846816
Anthony Minstein, B.A., CPIM, PMP,
Extension Honored Instructor
January 4–March 1
Online, accelerated 8-week format • $820

EDP 846824
Anthony Minstein, B.A., CPIM, PMP,
Extension Honored Instructor
January 18–April 12
Online • $820

EDP 846832
Deann Smith, B.A., PMP, CKM
March 3–April 28
Online, accelerated 8-week format • $820

Advanced Project Management

PMP/CAPM Exam Preparation

X469.3 • 3 semester units in Business Administration
45 pdu: PMI provider 1173

This 45-hour course prepares you for the Project Management Institute (PMI) Project Management Professional (PMP) and Certified Associate Project Manager (CAPM) examinations. In addition to in-depth coverage of PMI’s Project Management Body of Knowledge (PMBOK), you analyze sample exam questions, tips, and tricks to help you pass each exam. Chat room interaction, teleconferences with the instructor, virtual desktop sharing (with audio), and threaded discussions allow you to experience the full multimedia of this course.

EDP 846857
Edmond Matevosian, B.S., P.E.
March 3–April 28
Online, accelerated 8-week format • $1,599

Real Estate

Principles of Real Estate

X406.8 • 3 semester units in Business Administration

This course is required for those preparing to take California real estate licensing examinations and is also appropriate for those preparing to purchase homes or other properties. You learn the basic laws and principles of California real estate and how to apply those principles to current real estate opportunities in your own community. You also gain the understanding, background research, and grasp of terminology necessary for specialized courses. California law is emphasized, but many aspects are applicable to real estate interests in other states.

EDP 897033
Tom Gee, B.S.
Enroll anytime
Online, proctored final exam • $770
ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Computer Technology and Information Management

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

Technical Management and Analysis

Introduction to Information Systems Analysis and Design
X422 • 3 semester units in EECS-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management

This is the first course in a series covering information analysis and logical specification of the system development process in an organizational context. It emphasizes the interactive nature of the analysis and design process.

EDP 846402
Mark Angel, B.S., M.B.A., PMP
January 18–April 12
Online • $820

Advanced Business Systems Analysis
X423 • 3 semester units in EECS-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management

Learn the practical application of structured analysis and design techniques. You build on the information covered in Introduction to Information Systems Analysis and Design X422 by going through an entire system design cycle as a case study.

Prerequisite: Introduction to Information Systems Analysis and Design X422 or equivalent

EDP 846410
Todd Landreneau, Ph.D.
January 18–April 12
Online • $820

Database Management Systems

Concepts of Relational Database Management Systems
X408 • 3 semester units in EECS-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management

Study techniques for creating and using database applications in depth. You learn requirements analysis and specification; logical database design; normalization; database implementation; recovery, concurrency, integrity, and security concerns; and database use. The course curriculum focuses mainly on the relational database model and SQL.

Prerequisite: A programming course in any language or equivalent experience

EDP 846394
Andrew J. Oppel, B.A.
January 18–April 12
Online, proctored final exam • $799

Open Source and Operating Systems

Using the UNIX Operating System
X415 • 3 semester units in EECS-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management

This comprehensive overview of the UNIX operating system introduces you to logging in, the visual editor, file management, text processing, electronic mail, the directory structure, UNIX handling of files and processes, basic shell utilities, and writing shell scripts. (Using UNIX to write programs is not covered.) You learn a conceptual framework and a series of successful interactions with UNIX. Much of the course involves individualized, self-paced learning. Note: The course requires access to a UNIX system or a system capable of running the Linux operating system.

EDP 897264
James A. Connor, B.S.E.E., M.B.A.
Enroll anytime
Online, proctored final exam • $815

Programming Languages and Object-Oriented Programming

HANDS-ON
Introduction to Perl Programming
X416.7 • 1 semester unit in EECS
An elective in the Certificate Program in UNIX/Linux System Administration, in the Post-Baccalaureate Certificate in Information Systems and Management, and in the Professional Sequence in Database Management

Perl is widely used by UNIX and Windows programmers, system administrators, and World Wide Web database programmers. It is an easy-to-learn, extremely powerful extensible language with add-on modules for almost every kind of task imaginable. Perhaps its most powerful feature is that Perl programs run on any operating system with few, if any, changes needed. Learn to write, debug, and understand more complicated Perl programs.

Prerequisites: Familiarity with UNIX or Windows and experience with a programming language

EDP 877886
Carl Limsico, B.A.
Enroll anytime
Online • $595

Python Programming
X442.3 • 1 semester unit in EECS
An elective in the Certificate Program in UNIX/Linux System Administration, in the Post-Baccalaureate Certificate in Information Systems and Management, and in the Professional Sequence in Database Management

Python, an open-source scripting language that allows rapid application development of both large and small software systems, is object-oriented by design and provides an excellent platform for learning the basics of language programming. Learn this language, ideal for team projects, that provides access to databases, CGI programming, system administration, and other useful services.

Although no previous programming experience is required, you must have access to a computer running Python or access to the Internet to allow you to download Python.

EDP 877951
Carl Limsico, B.A.
Enroll anytime
Online, proctored final exam • $595

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
PHP Programming for the Web
X400 • 1 semester unit in EECS
An elective in the Post-Baccalaureate Certificate in Information Systems and Management
Learn the fundamentals of PHP: Hypertext Preprocessor, how PHP functions in the Web’s client-server relationship, and how it relates to standard HTML. You gain an understanding of one of the most common uses for PHP: handling the data created by an HTML form. Other topics include writing PHP scripts, using PHP to manage data, and creating Web applications with PHP. You also learn some of PHP’s more advanced features and security issues.
Prerequisites: You should have a hosted website with 10 MB of disk space, MySQL, and PHP. In general, most Web hosts offer workable sites. Free PHP Web-hosting options are also available.
EDP 897405
Robert Adams Jr., M.S.C.S., M.S.E.E.
Enroll anytime
Online • $595

Introduction to C Language Programming
X24 • 2 semester units in EECS
An elective in the Post-Baccalaureate Certificate in Information Systems and Management
Learn the C programming language and fundamental programming concepts, even if you don’t consider yourself a programmer. On successful completion of the course, you are able to write simple C language applications and undertake courses that assume some background in computer programming, such as C++, C#, Java, and Perl. Topics include variables, data types, functions, control structures, pointers, strings, arrays, and dynamic allocation principles. You need access to any programming environment that allows you to write, edit, compile, link, and debug a C program.
Although no previous programming experience is required, you should have access to a computer hosting a C/C++ compiler or access to the Internet to allow you to download and install a C/C++ compiler. Familiarity with fundamental programming language concepts such as variables, data types, and compiling source code is helpful.
EDP 867879
Robert Adams Jr., M.S.C.S., M.S.E.E.
Enroll anytime
Online • $595

C++ Programming I
X412.1 • 2 semester units in EECS
An elective in the Post-Baccalaureate Certificate in Information Systems and Management
C++ is a popular, widely used object-oriented programming (OOP) language. C++ provides all the tools for OOP, such as data abstraction, inheritance, polymorphism, and generic programming. Get a solid introduction to all the major features of ANSI standard C++, including the newer syntactic and semantic constructs, studying each concept through lucid, fluent examples. You learn all major features of C++ in this course, such as objects, classes, pointers, single and multiple inheritance, virtual functions, templates, run-time type identification (RTTI), exceptions, and STL.
Prerequisites: Some programming experience with languages like C, Java, C#, or Visual Basic is preferable. Access to a C++ compiler is required.
EDP 877860
Robert Adams Jr., M.S.C.S., M.S.E.E.
Enroll anytime
Online, proctored final exam • $715

C# Programming I
X444.3 • 1 semester unit in EECS
An elective in the Post-Baccalaureate Certificate in Information Systems and Management
Get an introduction to C# development using Microsoft Visual Studio, with particular focus on C# syntax, logic constructs, application development, exception handling, and the object-oriented nature of the language. You are also introduced to debugging C# applications, the .NET Framework, aspects of the .NET object hierarchy, and how to use C# in a .NET application environment.
Prerequisites: Understanding of C, C++, Java, or VB and access to a computer running Windows NT/2000/XP/2003 and Visual Studio
EDP 877413
Laura Malave, M.S.
Enroll anytime
Online, proctored final exam • $595

Java: Discovering Its Power
X436.2 • 2 semester units in EECS
A requirement in the Professional Sequence in Java Programming; an elective in the Certificate Program in UNIX/Linux System Administration and in the Post-Baccalaureate Certificate in Information Systems and Management
Java’s platform independence (write once, run anywhere) allows the same code to run on Windows, Macintosh, UNIX, mobile phones, and supercomputers. Java is popular for enterprise applications that run on Web servers. This high-level language enhances productivity and reduces bugs through automatic memory management and strong typing. Learning Java is easier than learning C or C++. Using the free Java development kit (JDK 6 SE), you learn practical fundamentals of the Java programming language as well as basic object-oriented programming so that you can write simple applications and take intermediate courses in Java.
Prerequisites: C++ Programming I or equivalent and some experience with object-oriented design and techniques. Familiarity with building graphical user interfaces is helpful.
EDP 877910
Carl Limsico, B.A.
Enroll anytime
Online • $715

Online Post-Baccalaureate Certificate Program in Information Systems and Management (ISM)

Acquire the practical skills that software manufacturers and organizations with a complex software infrastructure demand. Discover the latest approaches that professional analysts use to develop effective business and information systems. Gain an overview of database design. Or learn the advanced features of the UNIX/Linux operating systems.
See p. 95 for complete certificate details.
Integrated Circuit (IC) Design and Engineering

COURSE INFORMATION

(510) 642-4153
schang@unex.berkeley.edu
extension.berkeley.edu/cert/icdesign.html
www.berkeleyext.com

Fundamentals of Analog Integrated Circuit Design Techniques

X140 • 2 semester units in Electrical Engineering

A requirement in the Certificate Program in Integrated Circuit Design and Techniques

Gain a competitive advantage by learning how to analyze, simulate, and design a complementary metal oxide semiconductor (CMOS) analog integrated circuit. This course is intended for working professionals who have no strong foundation in analog design but are interested in either upgrading their knowledge and skills or redirecting their career development in the semiconductor market. Topics cover basic concepts, practices, and design skills used for analog ICs. Lectures include basic current mirrors, high-performance current mirrors, single-stage CMOS amplifiers, differential amplifiers, output stages, and short-circuit protection circuitry.

EDP 307843
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Advanced Design Techniques for Analog Integrated Circuits

X141 • 2 semester units in Electrical Engineering

A requirement in the Certificate Program in Integrated Circuit Design and Techniques

Advances in signal processing, analog/digital conversion, and the continued scaling down of complementary metal oxide semiconductor (CMOS) nanotechnology have ushered in the era of analog IC design with multistandard challenges. Topics include stability of feedback, frequency compensation, multistage operational amplifiers (op-amps), and optimized CMOS op-amp designs. Prepare to work on a design project to meet a required product specification. The scope of the project covers design of an advanced CMOS op-amp and of high-performance CMOS comparators for flash analog-to-digital converter (ADC) applications.

EDP 307850
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Introduction to Microelectronic Theory and Applications

X30 • 1 semester unit in Electrical Engineering

An elective in the Certificate Program in Integrated Circuit Design and Techniques

Because of the consistent advances in nanotechnology, microelectronics is one of society’s most influential industries. Taking an application-oriented approach, the instructor presents an overview of analog and digital integrated circuits, starting with the most frequently used and applicable semiconductor device and circuit theories, and channels them into more complex circuit schematics and application modules, such as amplifiers, operational amplifiers with bipolar and complementary metal oxide semiconductor (CMOS) technologies, digital inverters, precision rectifiers, voltage regulators, and biasing techniques of amplifiers.

EDP 307744
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Fundamentals of Integrated Circuit Design

X31 • 1 semester unit in Electrical Engineering

An elective in the Certificate Program in Integrated Circuit Design and Techniques

Learn the underlying concepts and industry-standard simulation tools for IC design, operational amplifier characteristics, and practical amplifier behaviors in the frequency domain. Designed for technical professionals, this course aids in understanding analog circuit essence and properties through analysis-by-inspection and SPICE simulation. Topics include basic operational amplifier (op-amp) circuits and applications, s-domain analysis, bandwidth and slew-rate limitations, and analyzing frequency limitations of amplifiers—a pivotal foundation for advancing to more intricate IC design topics.

EDP 307751
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Introduction to Physics of Semiconductor Devices

X32 • 1 semester unit in Electrical Engineering

An elective in the Certificate Program in Integrated Circuit Design and Techniques

The instructor takes semiconductor industry terms, such as energy bandgaps and minority carriers, and transforms them into powerful concepts to reveal the mysterious behavior of semiconductor devices. Topics include intrinsic and extrinsic semiconductors, carrier transport, p-n junction, and metal-semiconductor contact. An individual research project covers controversial subjects: the ultimate limits of integrated electronics and an integrated strategy for confronting commoditization in the foundry industry. Apply what you learn to many applications, including complementary metal oxide semiconductor (CMOS), bipolar junction transistor (BJT), LED, lasers, and sensors.

EDP 307777
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Fundamentals of Analog Microelectronic Techniques

X33 • 1 semester unit in Electrical Engineering

An elective in the Certificate Program in Integrated Circuit Design and Techniques

Develop intuitive skills for analyzing microelectronic circuits without doing lots of intricate mathematics. Although some courses use the classical approach requiring a tedious derivation that becomes more cumbersome with a complex circuit, this approach offers an alternative, focusing on the analysis-by-inspection method. Topics covered include low-frequency bipolar junction transistor (BJT) and metal oxide semiconductor (MOS) amplifiers, amplifier frequency response, analysis-by-inspection, Simulated Program with Integrated Circuit Emphasis (SPICE) simulation, and advanced case studies.

EDP 307769
Vincent Chang, Ph.D.
Enroll anytime
Online • $220
Digital Integrated Circuit Design
X134 • 2 semester units in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Study digital operation principles and advances into more complex areas involving multiplexers and flash memory. Featuring in-depth illustration and broad discussions, this course distills concepts, SPICE verification, and design skills from CMOS, ECL, and BiCMOS logic to memory design. Work on a research project covering cutting-edge technologies, including ULP eSRAM, design for handheld or mobile applications, nonvolatile memory, NOR flash, PRAM, and high-speed eDRAM.
EDP 307785
Vincent Chang, Ph.D.
Enroll anytime
Online • $440

Effective SPICE Circuit Simulation Techniques
X405 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Gain hands-on experience using Simulated Program with Integrated Circuit Emphasis (SPICE) to simulate, verify, examine, and design microelectronic circuits. Illustrating techniques to fully leverage SPICE, this course offers in-depth coverage ranging from semiconductor devices to analog and digital ICs. A design project covers wide-swing constant-transconductance bias; advanced comparators; and sequential digital circuits, such as master-slave DFFs and C2MOS latches. This course features an interactive online learning experience and offers a higher level of proficiency.
EDP 307793
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Fundamentals of Modern Data Converter Design
X236 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Ever-increasing applications for signal processing, such as video and wireless communications, demand high-speed, high-resolution data converter techniques. This course builds a solid foundation and gives you the skills to diagnose and tackle real-world issues. Topics include data converter fundamentals, characterization and performance limitations, Nyquist-rate D/A and A/D converters, SAR converters, and discrete-time signal processing for understanding delta-sigma converters. Project options include medium-resolution/high-speed A/D converters pertaining to the IEEE 802.15 UWB standard and error correction/calibration techniques in the sub-100 nm mixed-signal ICs.
This course has restricted enrollment. Call (510) 642-4153 or (510) 642-4151 for more information.
EDP 307801
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

Design Techniques of High-Performance Data Converters
X237 • 1 semester unit in Electrical Engineering
An elective in the Certificate Program in Integrated Circuit Design and Techniques
Completely updated to reflect the extraordinary advances in data converters, this course sets the professional online learning standard in the IC design sphere. It is intended for practitioners who have experience in analog design and are interested in upgrading their skills in data converters. Topics include high-speed Nyquist-rate converters, oversampling, delta-sigma modulators, and design examples through Simulink and HSPICE. Project options include 0.8 GS/s ADC for 10 Gb/s Ethernet applications and delta-sigma ADC for TV, software radio, and high-quality digital audio applications.
This course has restricted enrollment. Call (510) 642-4153 or (510) 642-4151 for more information.
EDP 307819
Vincent Chang, Ph.D.
Enroll anytime
Online • $220

ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111

Online Certificate Program in Integrated Circuit Design and Techniques
Take your technical skills to the next level with in-depth courses providing exactly what the industry demands—knowledge of integrated circuit design, semiconductor physics, and more. The optional Mandarin soundtracks support English texts, making it easy to switch between languages and maximize learning if your English is limited. Advisers who include UC Berkeley College of Engineering faculty and leaders of major semiconductor companies ensure your program is academically strong and professionally relevant.
See p. 137 for complete certificate details.
Professional Development for Educators

Web Design for Educators
X337.2 • 2 semester units in Education
Equip yourself with the skills and tools for developing educational Web pages that both support classroom curricula and have pedagogical intent and impact. You design, construct, and evaluate your own Web pages while exploring the issues of supplementing classroom material with Internet resources.

Prerequisites: Familiarity with HTML and navigating the Internet
EDP 877787
Margaret Londahl, M.A.
Enroll anytime
Online • $550

Developing Internet-Based Instruction
X331.6 • 3 semester units in Education
Gain the knowledge and skills necessary to produce online courses. You explore the theoretical foundations of Internet-based instruction and its practical applications, such as methods for student interaction, evaluation, and functional design. By the course’s end, you should know how to effectively use Internet-based instructional tools (such as hyperlinks, e-mail, newsgroups, chat, evaluation forms, graphics, and multimedia) to design, program, and publish instructional modules on the Internet.

EDP 877779
Joe Volk, M.A.
Enroll anytime
Online • $715

Communications and Network Engineering

Fundamentals of Data Communications and Networking
X433 • 2 semester units in Electrical Engineering CS-DCS
A core course in the Post-Baccalaureate Certificate in Information Systems and Management
Get an introduction to data communications in this introductory course in networking technology. You gain a practical understanding of relevant terminology, concepts, and other information necessary to make you literate in data communications. By the end of the course, you are able to make intelligent decisions about the appropriate design, purchase, integration, and use of data communications equipment and systems.

EDP 877902
Ching-Cheng Lee, Ph.D.
Enroll anytime
Online • $715

Electrical Engineering

ONLINE COURSE INFORMATION
(510) 642-7343
online@unex.berkeley.edu
extension.berkeley.edu/online

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Shakespeare
XBW17 • 4 semester units in English (formerly XB17)
An elective in the Post-Baccalaureate Certificate Program in Writing
Important: Special academic policies apply to XB and XBW courses. See p. 238.
Study five of Shakespeare’s plays (The Taming of the Shrew, Richard III, Othello, Macbeth, and The Tempest) recognized as literature of immense cultural importance and popular entertainment. Gain an understanding and appreciation of Shakespearean language and literary forms as well as a critical awareness of the continuing reinterpretation of Shakespeare’s plots and characters.

EDP 897827
Mary Ann Koory, Ph.D., Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $770

The History of the English Language
X102 • 4 semester units in English
English, the official language of 71 nations, is spoken on every continent on the planet. Yet despite its ubiquity, the varieties of written and spoken English are astounding and can be perplexing to anyone who has encountered reggae lyrics, the writings of Chaucer, or lilting drawls of the Old South. Examine the grammatical and semantic structure of English as it has evolved over the centuries, with attention to the nature and function of languages in general, illuminating the connections between language and other elements of culture. Topics include the origin and derivation of words; historical changes in sounds, forms, and meaning; literary and philosophical influences on the language; and contributions from other languages and cultures.

Prerequisites: Access to the Oxford English Dictionary (most libraries now have the compact edition) and the Oxford Dictionary of English Etymology is necessary. (You can subscribe to the OED online for as brief as a month at http://oed.com/subcribe.) Access to a library is recommended.

EDP 897512
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $770
Mystery Fiction
X103.9 • 3 semester units in English
Survey mystery fiction and its conventions, from the 19th-century origins of the genre to the classic Golden Age puzzle to the hard-boiled American female detective fiction of the 1930s. Understand the mystery novel's status as a significant form of modern fiction, one that explores how human consciousness makes sense out of what might otherwise be viewed as random experience and meaningless violence.
EDP 867606
Mary Ann Koory, Ph.D.,
Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $715
American Fiction
X135A • 3 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Survey the major American novelists and short-story writers of the 19th and early 20th centuries, such as Twain, Poe, Crane, Melville, Wharton, Hawthorne, London, and others. In addition to learning about various literary movements such as romanticism, realism, and naturalism, you consider questions of aesthetics, morality, poverty, racism, gender, and power.
EDP 867622
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $715
The English Novel
X125 • 4 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing
Survey the English novel by reading authors such as Forster, Trollope, Dickens, Brontë, Eliot, Wilde, Hardy, Stevenson, and others. Gain perspective on this literary form with emphasis on how moral, social, psychological, political, and philosophical problems were perceived during the Victorian and Edwardian periods.
EDP 897520
Gary Tombleson, Ph.D.
Enroll anytime
Online, proctored final exam • $770
The Development of World Civilization: The Neolithic Age to the Renaissance
X19 • 3 semester units in History
Get a comparative study of world civilizations from prehistoric times to the European Renaissance, focusing on spiritual, political, intellectual, and artistic developments. Learn about ancient civilizations of Sumer, Egypt, Persia, and Greece; the beliefs and social organizations of India, China, and Japan; the rise and fall of imperial Rome and China; pre-Columbian America and early-African cultures; the Mongol conquest of Eurasia; medieval culture and tension between East and West; and the shift toward modernity in the Renaissance.
EDP 867747
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770
The Development of World Civilization: 1500 to the Present
X24 • 3 semester units in History
Engage in a comparative introduction to the major cultures of the world since 1500, focusing on social, political, intellectual, and artistic developments and responses to the dynamics of modernity. Learn about the civilizations of the western hemisphere, Africa, and the Middle East; the beliefs and social organization of India, China, and Japan; European political and intellectual revolutions; the world wars and the Cold War; anticolonialist movements; and today’s political, economic, and environmental configurations across many regions.
EDP 867754
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770
Introduction to the History of the United States: From Colonial Settlement to the Civil War
XBW7A • 4 semester units in History (formerly XB7A)
Important: Special academic policies apply to XB and XBW courses. See p. 238.
Sharpen your understanding of the people, institutions, and ideologies that shaped the formation of the United States. Topics include exploration, settlement, colonial culture, the winning of independence, the Constitution, the new democracy, early-American technology, expansionism, sectional conflict, the Civil War, and Reconstruction. Gain practice in analytical methods that historians use to research facts and develop interpretations of events.
EDP 897835
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770
Introduction to the History of the United States: From the Civil War to the Present
XBW7B • 4 semester units in History (formerly XB7B)
Important: Special academic policies apply to XB and XBW courses. See p. 238.
Survey U.S. history from the 1870s to the new millennium, and increase your knowledge of events, institutions, and prominent historic figures while developing skills in historical analysis and interpretation. Topics include the settlement of the West, industrial growth, progressivism, the emergence of a consumer culture, the causes and effects of the principal wars since the Civil War, affluence and scarcity since World War II, the cultural revolution of the 1960s, Watergate, and the resurgence of conservatism.
EDP 897843
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $770
The Culture of India: Roots of Tradition and Change
X11 • 2 semester units in South and Southeast Asian Studies
Explore some of the fundamental facets of the history and culture of modern India. By studying the political history, the religious traditions, and the varied geography of India, you gain a framework for understanding Indian civilization and relating this knowledge to the political and social challenges in modern Indian society.
EDP 897348
Alice W. Clark, Ph.D.
Enroll anytime
Online, proctored final exam • $595
History of Islam
X21 • 3 semester units in Near Eastern Studies
Recipient of the Distinguished Course Award from the University Continuing Education Association (UCEA)
This broad course explores the rich and complex history of Islam from its birth to the present day. Gain a greater appreciation of the cultural, geographical, and political diversity of the people who comprise the Islamic mosaic. Particular attention focuses on the religious values of Islamic culture as exemplified by the life of the prophet Muhammad and as expressed in the Qur’an.
EDP 867788
Arthur Kane Scott, M.A.
Enroll anytime
Online, proctored final exam • $715
ENROLL NOW VISIT EXTENSION.BERKELEY.EDU/ENROLL CALL (510) 642-4111
Principles of Sociology: A Multicultural Perspective
X2 • 3 semester units in Sociology
Examine the basic topics, concepts, and principles of sociology. Consider the influence of social phenomena on human behavior, using comparative multicultural and cross-cultural approaches drawing on current, relevant examples. Topics include social ranking and mobility, crime and deviance, poverty, racial and ethnic minority status, gender discrimination, aging as a social process, the family, economic systems, political systems, religion, health care, education, and types and theories of social change.
EDP 867796
Gwynne Pacheco, Ed.D.
Enroll anytime
Online, proctored final exam • $760

Introduction to American Politics
XBW1 • 4 semester units in Political Science (formerly XB1)
Important: Special academic policies apply to XB and XBW courses. See p. 238.
Explore the theoretical implications of democracy and justice in this in-depth look at the structure of the U.S. political system. This course analyzes the basic workings of the Constitution and the institutions of the federal government, including Congress, the presidency, the judiciary, and governmental bureaucracy. Examine the system of electoral politics—including parties, interest groups, social movements, public opinion, and participation—as well as several areas of public policy: defense, foreign policy, civil rights and liberties, social spending, welfare reform, and the economy.
EDP 897850
Nina Clark, Ph.D.
Enroll anytime
Online, proctored final exam • $760

Philosophy and Religion
Comparative Philosophy
X11 • 3 semester units in Philosophy
Examine some fundamental philosophical questions from a variety of perspectives, including classical Western philosophy; Eastern and Western religious traditions; and specific cultural viewpoints, including feminist, Native American, and African thought. The course is intended not as a survey of these various philosophical systems, but as an introduction to basic themes in ethics, epistemology, and political and social philosophy. First, learn how these themes are defined in Western philosophy and then how they are approached in other systems of thought.
EDP 867523
Joseph Michael Fedel, M.A.
Enroll anytime
Online, proctored final exam • $715

History of Western Philosophy from the Pre-Socratic Period to the End of the Middle Ages
X20A • 3 semester units in Philosophy
Get an introduction to major philosophical concerns and concepts in Western thought, beginning with early texts in which philosophy first becomes distinguishable from myth and concluding with the philosophical debates of medieval Christianity. Explore philosophical questions relating to politics, metaphysics, natural science, logic, ethics, and aesthetics. The philosophers covered include Plato, Aristotle, Augustine, and Aquinas.
EDP 867531
Joseph Michael Fedel, M.A.
Enroll anytime
Online, proctored final exam • $715

Views of the Absolute in World Religions
X10 • 3 semester units in Religious Studies
Religion has been a fundamental part of the social, cultural, and political fabric of civilizations throughout history. Explore the important aspects of several important world religions, focusing on their definitions of the absolute (for example, God, Tao, the void) and how the individual relates to it. Diverse religions are covered, including Islam, Judaism, Christianity, Hinduism, Taoism, Buddhism, and Native American traditions.
EDP 867549
Joseph Michael Fedel, M.A.
Enroll anytime
Online, proctored final exam • $730

Sciences, Biotechnology, and Mathematics
ONLINE COURSE INFORMATION
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Biology
Introductory Biology with Lab, Part A
X19A • 5 semester units in Molecular and Cell Biology
How do cells convert nutrients into usable energy? What is the relationship between genes, chromosomes, and DNA? Learn the answers to these and other questions while building a solid foundation in the fundamental concepts of molecular and cell biology, including cell structure and function, metabolism, and genetics, as well as animal development, form, and function. Put theory into practice with “home wet lab” and virtual experiments, and explore the relation between biological issues and current topics in experimental research, biotechnology, and medicine.
Familiarity with basic chemistry is recommended but not required.
EDP 897579
Monica Ranes-Goldberg, Ph.D.
Enroll anytime
Online, proctored final exam • $830

Introductory Biology with Lab, Part B
X19B • 5 semester units in Molecular and Cell Biology
What are the mechanisms of evolution? How do plants perform basic biological functions? How do organisms interact with each other and their environment? Discover the answers to these and other questions while gaining a solid foundation on macroscopic biological issues, including organismal diversity—with particular emphasis given to plants, evolution, evolutionary biology, and ecology. Learn about biological diversity and ecological principles, including the effects of human activity on the environment. Put principles into action through “home wet lab” and virtual experiments.
Familiarity with basic chemistry is recommended but not required.
EDP 897587
Susan Parkinson, Ph.D.
Enroll anytime
Online, proctored final exam • $830
Introduction to Human Physiology

XBW32 • 3 semester units in Molecular and Cell Biology (formerly XBW32)

Important: Special academic policies apply to XB and XBW courses. See p. 239.

Understand the complexities of the cells, tissues, and major organs and systems of the human body. Study a different system each week, concentrating on basic mechanisms underlying human life processes and important diseases affecting normal human function.

Prerequisite: One year of high school or college chemistry

EDP 897876
Keith Earnshaw, M.S., Ph.D.
Enroll anytime
Online, proctored final exam • $795

Introductory Biochemistry

X105 • 3 semester units in Molecular and Cell Biology

Understand the basic chemistry and overall structure of the most important biological macromolecules, including the study of enzyme catalysis; cellular architecture; intermediary metabolism; and special processes such as photosynthesis, biological oxidation, and energy production. Explore the various ways that biological systems react to their environment.

Prerequisites: College-level courses in elementary chemistry and biology. One or two semesters of organic chemistry is recommended.

EDP 867945
John M. Forger III, Ph.D.,
Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $770

Principles and Techniques of Molecular Cell Biology

X121 • 3 semester units in Molecular and Cell Biology

45 hours CE credit: BRN provider 00226

Learn how cells function by exploring gene regulation and expression, cell regulation, genetic engineering, the Human Genome Project, the genetics of cancer, immune system diseases, and DNA technology in forensics.

Prerequisite: One year of college-level general biology

EDP 867960
John M. Forger III, Ph.D.,
Extension Honored Instructor
Enroll anytime
Online, proctored final exam • $795

Immunology

X110 • 3 semester units in Molecular and Cell Biology

45 hours CE credit: BRN provider 00226

The immune system plays the crucial role of battling infection and cancer in the body. As a defense system, it must recognize and distinguish between what is foreign and what is self. Examine the basic principles of immunology, and study the tissues and cells that make up the immune system. Understand the structure and function of immunoglobulins, and investigate the nature of their interactions with antigens. Learn to discuss biotherapeutics, cancer, and AIDS from an informed standpoint.

Prerequisite: A year of college-level general biology for majors.

EDP 867952
Amy S. Morgan, Ph.D.
Enroll anytime
Online, proctored final exam • $795

The Biology of Cancer

X26 • 3 semester units in Molecular and Cell Biology

Examine the molecular, cellular, and genetic basis for the 270 diseases called cancer. Topics include the biology of uncontrolled cellular growth, the etiology of cancer, clinical presentation, diagnosis, staging, treatment, and the psychological effects of cancer on patients and their families.

A background in high school or college-level biology is recommended.

EDP 867994
David Liu, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Marine Biology

X55 • 3 semester units in Integrative Biology

Examine the types of organisms that inhabit the marine environment and the types of habitats and ecological systems in seas and oceans. In this introductory course, you also consider human use of the marine environment and the resulting problems and issues, including pollution, habitat modification, and exploitation of resources.

EDP 877035
Stephen W. Shaner, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Advanced Biosciences

Epigenetics of Human Development and Disease

X423 • 3 semester units in Molecular and Cell Biology

Epigenetics is the study of heritable changes in gene expression that do not involve changes in the DNA sequence. Epigenetic mechanisms play important roles in development from a fertilized egg into a complex human being, as well as in aging and in various diseases (including cancer). Prepare to study topics such as DNA methylation, histone modification, RNAi, cancer epigenetics, stem cells, and the environment (for example, nutrition and stress) as a potential modifier of our own epigenome.

Although there are no formal prerequisites to this course, some background in molecular biology and genetics would be helpful.

EDP 897777
Rebekah Marsh, Ph.D.
Enroll anytime
Online • $795

Chemistry

Introduction to Chemistry

X16 • 3 semester units in Chemistry

This nonlab course offers an introduction to basic principles in chemistry and demonstrates the role chemistry plays in various aspects of everyday lives.

Prerequisite: Although a background in chemistry is not necessary, students are required to have a basic knowledge of math, including algebra.

EDP 897645
Weiwei Gu, Ph.D.
Enroll anytime
Online, proctored final exam • $770
Introductory Organic Chemistry

X18 • 3 semester units in Chemistry
Examine the compounds that comprise most of the mass in living things. Following an introduction to covalent bonding and isomerism, move into a detailed discussion of the molecular structures and properties of various classes of organic and other biologically important compounds.

Prerequisites: A course in introductory chemistry and knowledge of basic algebra
EDP 897652
Weiwei Gu, Ph.D.
Enroll anytime
Online • $770

Geology and Environmental Sciences

Contemporary Environmental Issues

X70 • 4 semester units in Environmental Science, Policy, and Management
The Earth is besieged with great environmental pressures as the human population increasingly depletes the planet’s “natural capital.” In this course, you gain an understanding of the physical, biological, and ecological processes of the global ecosystem, as well as the human impact from cultural, social, and economic influences that disrupt these processes. You also acquire an understanding of the roles played by government, business, scientists, advocacy groups, and individual citizens in shaping solutions to environmental problems and managing resources.

EDP 867929
Douglas Greenberg, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Physics

Concepts of Physics

X11 • 4 semester units in Physics
Gain an understanding of the principles of physics in the context of how everyday objects work. Intended for students majoring in the humanities and social sciences, as well as anyone with an interest in the subject, this course covers forces and motion, conservation laws, heat, fluids, vibrations and waves, electricity and magnetism, and sound and light, with emphasis on applying the principles to understand everyday experience. Study the concepts of physics with a minimum of mathematics.

EDP 897660
Raja Almukahhal, Ph.D.
Enroll anytime
Online, proctored final exam • $770

Clinical Research

Introduction to Clinical Research: Clinical Trial Phases and Design

X400.2 • 3 semester units in Public Health
45 hours CE Credit: BRN provider 00226
A requirement in the Certificate Program in Clinical Research Conduct and Management
Review the drug development process, principles of good clinical practice, clinical trial phases and design, principal players in clinical research, regulatory strategies, and medical terminology.

EDP 846642
Michael Dubinsky, B.S.
January 4–March 1
Online • $1,895

EDP 846659
Karen Henry, M.P.H.
March 3–April 28
Online • $1,895

Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities

X400.3 • 3 semester units in Public Health
45 hours CE Credit: BRN provider 00226
A requirement in the Certificate Program in Clinical Research Conduct and Management and an elective in the Professional Program in Quality and Compliance for Biotechnology
Learn the procedures inherent to planning clinical trials, including protocol development, case report form design, IRB submission, site selection, prestudy visits, and more.

Prerequisite: Introduction to Clinical Research: Clinical Trial Phases and Design X400.2
EDP 846428
Karen Henry, M.P.H.
January 4–March 1
Online • $1,895

EDP 846444
Siu Po Sit, Ph.D.
March 3–April 28
Online • $1,895

Online Certificate Program in Clinical Research Conduct and Management

Master practical aspects of clinical trial conduct and management, FDA regulations, International Conference on Harmonisation (ICH) and Good Clinical Practices (GCP) guidelines, procedural guidelines, and ethical considerations covering multiple aspects of clinical trials.

See p. 167 for complete certificate details.
Clinical Trial Implementation: Site Initiation, Subject Recruitment, Monitoring, and Safety Reporting

X400.4  3 semester units in Public Health
45 hours CE Credit: BRN provider 00226
A requirement in the Certificate Program in Clinical Research Conduct and Management
Get a thorough look at the role of clinical trial monitors. Understand the various aspects of study monitoring, such as data review, safety reporting, and drug accountability. Study global drug development and subject recruitment and retention, topics that are crucial to meeting study timelines.

Prerequisites: Introduction to Clinical Research: Clinical Trial Phases and Design X400.2 and Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities X400.3

EDP 846451
Instructor to be announced
January 4–March 1
Online  $1,895

EDP 846477
Bonnie Miller, R.N., M.A.
March 3–April 28
Online  $1,895

Clinical Trial: Data Analysis, Regulatory Audits, Vendor Selection, and Project Management

X400.5  3 semester units in Public Health
45 hours CE Credit: BRN provider 00226
A requirement in the Certificate Program in Clinical Research Conduct and Management

Learn the clinical study report and other procedures at study close-out to prepare yourself for regulatory audits and inspections. Get an overview of project management and vendor selection in clinical research.

Prerequisites: Successful completion of Introduction to Clinical Research: Clinical Trial Phases and Design X400.2, Clinical Trial Planning: Protocol Development, Data Management, and Clinical Site Activities X400.3, and Clinical Trial Implementation: Site Initiation, Subject Recruitment, Monitoring, and Safety Reporting X400.4

EDP 846485
Instructor to be announced
January 4–March 1
Online  $1,895

EDP 846501
Instructor to be announced
March 3–April 28
Online  $1,895

Mathematics

Calculus X1A

X1A  4 semester units in Mathematics
Approved as a prerequisite to the Haas School of Business Evening and Weekend M.B.A. Program

In this introduction to differential and integral calculus, examine the key concepts of limit, derivative, and continuity, as well as the main applications of derivatives in graphing functions and optimizing functions. Then explore the fundamental theorem of calculus, which leads to the concept of integration and one of its main applications in calculating volumes through solids of revolution.

Prerequisite: Three-and-one-half years of high school mathematics, including trigonometry and analytic geometry

EDP 846147
Makan Rokni, Ph.D.
January 18–April 12
Online  $790

EDP 867820
Merlin Miller, M.A.
Enroll anytime
Online, proctored final exam  $785

EDP 897751
Makan Rokni, Ph.D.
Enroll anytime
Online  $785

Calculus X1B

X1B  4 semester units in Mathematics
This continuation of Calculus X1A includes techniques of integration, applications of integration, infinite sequences and series, first-order ordinary differential equations, exact equations, second-order ordinary differential equations, oscillation and damping, and series solutions of ordinary differential equations.

Prerequisite: Calculus X1A or equivalent

EDP 846139
Makan Rokni, Ph.D.
January 18–April 12
Online  $790

EDP 867838
Merlin Miller, M.A.
Enroll anytime
Online, proctored final exam  $785

EDP 897769
Makan Rokni, Ph.D.
Enroll anytime
Online  $785

Precalculus

X9  2 semester units in Mathematics
Gain exposure to concepts in basic and advanced algebra and some trigonometry. Topics such as logarithms, solving or graphing linear equations, and factoring a polynomial should be familiar to some students. However, this class goes into these topics at a more advanced level than a beginning or intermediate algebra class does. You gain a good foundation for study in future calculus classes. Note: An integral component of this course is the interactive website MyMathLab. For complete system requirements, go to www.mymathlab.com/system.html.

Prerequisites: Two years of high school algebra, or the equivalent of a beginning and an intermediate algebra class, and one year of high school geometry or its equivalent

EDP 877605
Flor Feldman, M.Sc.
Enroll anytime
Online, proctored final exam  $720

Statistics

Introduction to Statistics

XBW2  4 semester units in Statistics (formerly XB2)

Approved as a prerequisite to the Haas School of Business Evening and Weekend M.B.A. Program
Important: Special academic policies apply to XB and XBW courses. See p. 238.

Learn basic concepts of probability and statistical inference, focusing on an intuitive approach to understanding concepts and methodologies. Get an introduction to statistical and critical thinking, including descriptive statistics, probability, sampling distributions, interval estimation, hypothesis testing, and regression. The online course is the recipient of the Helen Williams Award for Excellence in Collegiate Independent Study from the American Association for Collegiate Independent Study (AACIS).

Prerequisites: Two years of high school algebra. A recent course in college algebra is recommended.

EDP 897892
G. James Pan, Ph.D.
Enroll anytime
Online, proctored final exam  $785

EDP 897900
Dieter Jurkat, M.S., Extension Honored Instructor
Enroll anytime
Online, proctored final exam  $785

EDP 897884
Makan Rokni, Ph.D.
Enroll anytime
Online, proctored final exam  $785
**Sustainability Studies**

**ONLINE COURSE INFORMATION**

(510) 642-7343  
online@unex.berkeley.edu  
extension.berkeley.edu/online

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**Sustainable Design**

**Principles of Sustainable Design**  
X400.6 • 2 semester units in Architecture  
A requirement in the Professional Program in Sustainable Design

Examine the history and development of sustainability as a social goal, and explore its implications for the design of built environments. Study concepts such as permaculture, biophilia, localism, life-cycle analysis, biomimicry, natural capitalism, cradle-to-cradle production, unfolding wholeness, and ecological design. In addition to the latest tools, techniques, and materials, you explore government programs, legislation, industry regulations and codes, green certifications, LEED, and nonprofit organizations involved with sustainability.

**EDP 846113**  
Jessica Carew Kraft, Ph.D.  
Enroll anytime  
Online • $799

**Practical Applications of Sustainable Design**  
X470.1 • 2 semester units in Architecture  
A requirement in the Professional Program in Sustainable Design

Translate your knowledge of sustainable design concepts into practical, deployable, and tangible methods. Learn to take responsibility for your work by understanding the impact that your designs have on the environment and ways to control this impact. Through research of materials, systems, and construction methods, you explore the ways to design and build in an environmentally responsible manner. Using case studies, you look at how others are creating community, solving economic problems, and developing new solutions to design. Class involves lectures, discussions, and student presentations exploring these ideas.

**EDP 846154**  
David Waldorf, M.A.  
Enroll anytime  
Online • $795

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**Green Chemistry**

**Principles of Green Chemistry**  
X413 • 2 semester units in Chemistry

Learn the core principles of green chemistry, and connect your knowledge of green chemistry to your own experiences through real-world examples and projects. Challenges to the health of the environment abound, including pollution, climate change, and the overuse of natural resources. Chemistry, the study of matter and how it changes, can greatly influence human health and the health of the environment. Green chemistry unleashes the creativity of scientists and engineers in designing and discovering the next generation of chemicals and materials so that they provide increased performance while protecting and enhancing human health and the environment.

**EDP 846246**  
Mimosa Burr  
Enroll anytime  
Online • $575

**Green Chemistry and Chemical Policy**  
X400.8 • 2 semester units in Public Health

Learn the current and historical policy context of industrial chemical regulation, as well as the relevance of the concepts and application of green chemistry and green engineering in moving humans collectively toward a more sustainable economy and society. You also study the weaknesses of historical approaches to chemicals management in protecting public and environmental health, as well as the key challenges that remain in implementing comprehensive chemicals policy reform.

**EDP 846253**  
Ann Blake, Ph.D.  
Enroll anytime  
Online • $575

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**Writing, Editing, and Technical Communication**

**ONLINE COURSE INFORMATION**

(510) 642-7343  
online@unex.berkeley.edu  
extension.berkeley.edu/online

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**Editing**

**Grammar, Mechanics, and Usage for Editors**  
X445 • 2 semester units in English

A requirement in the Professional Sequence in Editing

Editors must have a strong command of English grammar, syntax, and mechanics to edit the work of others clearly, confidently, and correctly. Gain a practical understanding of grammar and the logic governing syntax and punctuation use. Learn to analyze grammar and syntax, understand sentence structure, transition from one idea to another, and choose the right words to convey meaning, among other topics. Homework exercises, frequent quizzes, and a multidraft editing assignment help build your expertise. **Enrollment is limited.**

**Prerequisite:** Students must be proficient in English and have a solid grasp of English grammar.

**EDP 846600**  
Linda R. Thompson, M.A.  
January 18–April 12  
Online • $595

**EDP 846618**  
Leda Ciraozo, Ph.D.  
January 25–April 1  
Online • $595
Editorial Workshop I: Introduction to Copyediting
X405 • 2 semester units in Journalism
A requirement in the Professional Sequence in Editing
Get an overview of the editorial process in this beginning copyediting course, including the use of style manuals and reference books, creation of style sheets, and methods of querying authors and project editors. Learn how to edit using conventional marks and symbols; apply the appropriate level of copyediting; eliminate bias; query permissions; ensure consistency; typecode a manuscript; and copyedit and insert figures, tables, and artwork. Enrollment is limited.
Prerequisite: Grammar, Mechanics, and Usage for Editors X445
EDP 846626
Leda Cirioo, Ph.D.
January 18–April 12
Online • $599
EDP 846634
John Curley
January 25–April 1
Online • $599
EDP 846667
Gail Hynes Shea
January 25–April 1
Online • $599
Editorial Workshop II: Intermediate Copyediting
X415 • 2 semester units in Journalism
A requirement in the Professional Sequence in Editing
Study more complex aspects of copyediting and the fine points of editorial style that editors of book-length manuscripts must master. Practice working within the three levels of copyediting—light, medium, and heavy—and learn how to edit using different style manuals. You also get additional practice working with codes and type specifications, photos and artwork, tables, and references and footnotes. Frequent editing assignments are required.
Prerequisite: Editorial Workshop I: Introduction to Copyediting X405
EDP 846584
Linda R. Thompson, M.A.
January 18–April 12
Online • $599
Advanced Editorial Workshop: Substantive Editing
X425 • 2 semester units in Journalism
A requirement in the Professional Sequence in Editing
Develop your skills in applying the principles of effective writing to the editing of nonfiction book manuscripts. Examine two phases of substantive editing—line editing and developmental editing—and learn the art of proposing editorial changes other than those required to correct errors or to achieve a consistent editorial style. Learn how to edit for clarity and concision, how to identify problems of cohesion and coherence (logical flow), and how to refine and invigorate an author’s style.
Prerequisites: Editorial Workshop II: Intermediate Copyediting X415
EDP 846592
Greer Lleuad, B.F.A.
January 18–April 12
Online • $599
Indexing: Theory and Application
X477 • 3 semester units in Journalism
Recipient of the 2005 Distance Learning “Community of Practice” Course Award from the University Continuing Education Association (UCEA)
A good index greatly enhances the usability and value of a book, yet few writers and editors are versed in the construction of this vital part of a nonfiction publication. Learn the fundamentals of writing, editing, and delivering back-of-the-book indexes to publishing clients. You also learn the basic format, guidelines, and term-selection approaches of embedded and Web indexing, using three major indexing software programs to complete several of your assignments.
Prerequisites: Strong language, reading, computer, and Internet skills. A PC running the Windows OS is highly recommended. See Web for details.
This course has six rotating sections with varying instructors: Sylvia Coates, Heather Ebbs, Lucie Haskins, Fred Leise, Max McMaster, and Jan C. Wright.
For information about available sections visit extension.berkeley.edu/cat/course394.html.
Technical Communication
X466 • 2 semester units in Journalism
A requirement in the Professional Sequence in Technical Communication
Build on the skills you developed in Technical Communication I X465. Hone your ability to define the audience and purpose of a document to present the information in an optimal form. Improve your technical writing style and technique while creating writing samples that include a variety of document types for both paper and online presentation. Review technical communication tools and technology, as well as current Web content and formatting languages.
Prerequisite: Technical Communication I X465 (or the online course Technical Writing X412) or equivalent
EDP 877803
John Tabor, B.A.
Enroll anytime
Online, proctored final exam • $550
Technical Writing
X412 • 3 semester units in English
May be substituted for Technical Communication I X465 in the Professional Sequence in Technical Communication
Develop your ability to organize and craft information for manuals, journal articles, reports, and other technical publications. Learn document design and production principles, computerized interactive documentation, the use of desktop publishing, and the publication-to-print process.
EDP 877845
John Tabor, B.A.
Enroll anytime
Online • $770
Take the next step in your editing career with formalized training from UC Berkeley Extension. Whether you want to rise in publishing or use what you learn in another industry, the Professional Sequence in Editing can help you add to your marketable skills.
See p. 199 for complete sequence details.
Writing

The Craft of Writing
X421 • 2 semester units in English
A requirement in the Post-Baccalaureate Certificate Program in Writing

Creative writing students need to become comfortable with elements of the craft, whether they are fine-tuning an image in a poem or introducing a character in the beginning of a short story. Gain practical exposure to the uses, demands, and possibilities of craft in fiction, poetry, and nonfiction in this course. Enrollment is limited to 18.  
EDP 846550  
Gene Tanta, M.A., Ph.D.  
January 18–April 12  
Online • $550

Exploring Your Creative Writing Potential
X70 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Learn to assess your potential, identify your strengths, and develop valuable writing techniques in this course for beginning writers. Class exercises and weekly writing assignments help you discover your talents in a variety of forms: short fictional scenes, short stories, poetry, and journalistic writing. A supportive atmosphere helps you see how others respond to your writing. On completion, you should have a clearer sense of your writing strengths and a direction to take for more advanced courses.  
EDP 867689  
Mimi Albert, M.F.A.  
Enroll anytime  
Online • $550

Introduction to Writing Fiction
X464 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Learn the basic concepts and techniques of writing fiction, with the aim of heightening your sense of language and developing your ability to solve problems of structure, characterization, viewpoint, story line, imagery, dialogue, and believability. The instructor evaluates your manuscripts and allows time for classroom discussion. The course is recommended for those without previous writing experience. Enrollment is limited.  
EDP 897371  
Mimi Albert, M.F.A.  
Enroll anytime  
Online • $550

Developing the Novel I
X125.1 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Explore the craft of longer fiction and how to meet its creative challenges. Each session includes a lecture on craft, supported by discussion of assigned readings and exercises to unlock the potential of your ideas. Learn how to develop characters, language, voice, pace, tone, theme, and setting, and participate in a group critique of student work. Enrollment is limited to 18.  
EDP 867614  
Mimi Albert, M.F.A.  
Enroll anytime  
Online • $550

Writing Skills Workshop
X13 • 2 semester units in English
A requirement in the Post-Baccalaureate Certificate Program in Writing

This workshop is a practical approach to the writing process. Learn to analyze effective prose; develop a clear and logical point; build a coherent structure; and craft clear, appropriate sentences. In-class writing exercises, demonstrations, discussions, revisions, and private conferences build confidence as you improve the clarity, persuasiveness, and efficiency of your writing. The skills emphasized lend themselves to business or technical writing, as well as journalism or college-level essay writing. Enrollment is limited.  
Prerequisite: Students must be proficient in English and have a solid grasp of English grammar.  
EDP 846378  
Margaret Steen, M.J., Extension Honored Instructor  
January 18–April 12  
Online • $555

Writing the Feature Story
X419 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Learn how to find, research, and write articles for print or online publications, and discover how freelancers write stories that sell. With the instructor’s help, you come up with a nonfiction story idea, do the reporting and interviewing to gather details and quotes, write and revise the article, and submit it to an editor for possible publication. Class participation supplements lectures and writing exercises.  
EDP 897488  
Margaret Steen, M.J., Extension Honored Instructor  
Enroll anytime  
Online • $550

Creative Nonfiction Workshop
X140 • 2 semester units in English
An elective in the Post-Baccalaureate Certificate Program in Writing

Learn how to apply the techniques of storytelling to both fiction and nonfiction prose pieces, including personal essays, features, commentaries, reviews, reports, journal entries, and memoirs. Together, the instructor and other participants form your audience, offering support and critical feedback about your pieces. Weekly class discussions and writing assignments focus on story principles such as plot, tension, scene, and dialogue that increase the readability of your work and form your material into publishable pieces.  
EDP 867630  
Arlene Plevin, M.F.A., Ph.D.  
Enroll anytime  
Online • $550

Introductory Composition
X2A • 3 semester units in English

Learn how to compose well-crafted college-level essays by exploring each step in the writing process. In various writing assignments, you gain practice with descriptive, narrative, and other forms of expository writing.  
EDP 867648  
Gary Tombleson, Ph.D.  
Enroll anytime  
Online, proctored final exam • $715

Composition and Literature
X2B • 3 semester units in English

Learn the critical-thinking skills that teach you to write about literature with thoughtful analysis, evaluation, and enjoyment of representative literary forms such as short stories, poems, plays, and novels.  
Introductory Composition X2A is not a prerequisite for this online course.  
EDP 867655  
Gary Tombleson, Ph.D.  
Enroll anytime  
Online, proctored final exam • $715
When you need the best training, turn to UC Berkeley Extension. We can help you get or keep a professional license, gain or maintain accreditation, comply with new regulations, prepare for a certification exam, or simply upgrade your skills.

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Limitations apply. See extension.berkeley.edu for details.
Enrollment

Who May Enroll
UC Berkeley Extension courses are open to the general public. Unless otherwise indicated, any interested adult may enroll. If a student requires special accommodation, they should refer to p. 236. Any course prerequisites are listed in the course descriptions.

Note regarding enrollment in UC Berkeley-equivalent (XB or XBW) courses, including courses through concurrent enrollment. Special requirements and deadlines apply to students in UC Berkeley-equivalent courses, including courses taken through concurrent enrollment or online. Please review these requirements and deadlines prior to enrollment; for further information, please refer to p. 238 or extension.berkeley.edu/info/enrollment.html#feb.

Concurrent enrollment application information and deadlines differ from other Extension courses; for information specific to concurrent enrollment, refer to p. 238 or extension.berkeley.edu/info/concurrent.html.

When to Enroll
Enrollment for the spring 2010 term opens December 6. Enrollments are processed in the order received, so we recommend that students enroll early to ensure a place. Payment is due at the time of enrollment.

How to Enroll
Students may enroll via the Web, by phone, mail, or in person. UC Berkeley Extension will use the information provided on the enrollment form to notify students of any changes in their class schedule.

Via the Web
For classroom courses, visit extension.berkeley.edu/info/enrollment.html. Students will receive an enrollment confirmation by standard U.S. mail within five business days.

For online courses, go to extension.berkeley.edu/online and enter the course Electronic Data Processing (EDP) number in Quick Enroll. Students will be notified that Extension has received the request for enrollment. Students will receive a welcome letter via e-mail with information on accessing the course within a few days.

By Phone
Extension accepts Visa, MasterCard, American Express, and Diners Club. Call (510) 642-4111. Registration hours are 8 am–5 pm, Monday–Friday, except holidays (see p. 240). Please be prepared to give us the information requested on the enrollment form on the inside back cover of this catalog.

By Purchase Order
For payment by purchase order only, fax enrollments to (510) 642-3910. For more information regarding purchase orders, see Paying Enrollment Fees on this page.

By Mail
Complete and send us the form on the inside back cover of this catalog, or a copy of it, with payment. Do not mail cash.

In Person
Come to Extension registration offices in Berkeley (see p. 241 for location), San Francisco (see pp. 243–244), or Belmont (see p. 243). For center schedules, see the listings beginning on p. 241.

Enrolling in an Online Course
For courses with published start and end dates, students must enroll prior to the start date. These courses must be completed within the specific dates posted in the course section information.

Many online courses are self-paced, which means students may enroll at any time and progress at their own speed, keeping in mind that they have six months (including any final exam or project) to complete the course. (Our online paralegal program requires students to complete courses within two months.) Plan on devoting a minimum of one month of study for each semester unit of the course. Submit no more than one assignment per week to the instructor, and wait until this assignment has been returned before submitting the next one. Students who are unable to complete their course work and do not officially withdraw from the online course will receive a grade of "F."

If the self-paced course is marked temporarily closed, students can be automatically notified when enrollment reopens. To initiate this, find the course description online at extension.berkeley.edu/cat, click on the Notify Me button in the course section block, and provide contact information. Students will be notified by e-mail when the course becomes available again.

Note: As a condition of enrollment and to ensure successful completion of an online course, Extension courses require student participation in chat rooms and message boards specific to the course. The e-mail address and/or online identity students use when entering chats, or as they post on message boards, will be visible to all other participants. By enrolling in an Extension online course, students authorize the disclosure of their e-mail addresses and/or online identities for this purpose and other Extension communication.

Technical Requirements for Online Courses
For information, go to extension.berkeley.edu/info/onlineinfo.htm#techreqs.

Enrolling at the First Class Meeting
If students have not enrolled before the date of the first class meeting and there is still space available in the class, they may enroll before class begins if the class is located at an Extension center.

For course status information, including availability of space, call (510) 642-4111.

Note: Extension cannot guarantee that course materials, texts, or additional classroom space will be immediately available for students who do not enroll in advance.

Waitlist
Student names will be added to the waitlist if the course section is full. Students will be notified if space becomes available. If we do not hear from a student within 24 hours of notification, the space will be offered to the next person on the waitlist. If students are waitlisted, they should not attend the first class meeting unless they are specifically advised to do so by Student Administrative Services. Student Administrative Services maintains the waitlist; instructors cannot approve enrollments from the waitlist.

Cancellation of Courses
Extension cancels courses only when absolutely necessary, but we must reserve the right to do so, as well as to reschedule courses and change instructors. UC Berkeley Extension receives no state or University funding and is self-supporting from course fees. If a course is canceled, students may either request a transfer to another course or they will automatically receive a full refund, usually within four weeks.

Paying Enrollment Fees
Students are not officially enrolled until fees are paid in full; partial payments cannot be accepted. All fees were accurate as of print publication time. All fees are subject to change without notice. For the most current information, call (510) 642-4111 or visit extension.berkeley.edu.

Methods of Payment Include the Following
• Check (with imprinted address and telephone number) made payable to UC Regents. A $25 charge is assessed for a returned check.
• Credit card: Visa, MasterCard, American Express, or Diners Club. If students pay by credit card and the charge is declined, students will lose their space in the course.
• Cash is not accepted by mail or at the Belmont Center.
• Purchase order: An enrollment form (see inside back cover of this catalog) must accompany the request. To enroll with a purchase order, including vocational rehabilitation or employer tuition voucher, please fax the completed enrollment form with the purchase order from a sponsoring company or organization to (510) 642-3910. Extension cannot accept purchase order enrollments by phone. For additional questions regarding purchase order processing, please e-mail unex_ar@unex.berkeley.edu.
• Complete AmeriCorps/National Service Trust Voucher: Complete section A for the amount of course fees only, note date of birth at the top of the form, and attach the voucher to the enrollment form when enrolling by mail or in person.

A hold may be placed on student records and no request for transcripts will be granted until all outstanding debts to the University are paid in full.
Transfers and Refunds

Transfers for Classroom and Hybrid Courses

To change sections or to enroll in a different course, students must request a transfer to the new section or course within the time limits listed below. If a course has three or fewer classroom meetings, students must request transfers by the last business day before the course start date. For example, if the course starts on a Sunday, students must request their transfer by the close of business the Friday before the class starts.

If a course has four or more classroom meetings, students must request transfers within one business day after the first class meeting. For example, if the course starts on a Saturday, students must request their transfer by the close of business on the following Monday.

Transfers for Online Courses

For fixed-date online courses, students can request transfers up to five business days after the course start date. For example, if the course starts on a Thursday, students must request their transfer by the close of business on the following Thursday (Pacific time). As another example, if the course starts on January 18, students must request their transfer by the close of business on January 25 (Pacific time).

For self-paced online courses, students can request transfers up to five business days after their Welcome Letter has been e-mailed. For example, if a student’s Welcome Letter is e-mailed on a Thursday, he or she must request a transfer by the close of business on the following Thursday (Pacific time). As another example, if the Welcome Letter was e-mailed on January 18, students must request a transfer by the close of business on January 25 (Pacific time).

All transfer requests are subject to a $35 course change fee, except transfer requests that are a result of course cancellations. Approvals for transfers will be based on course and space availability and the scheduled course start date, as applicable. Any difference in course fees will be assessed and due at the time of the transfer. If students have any questions regarding the transfer or refund policy, please call (510) 642-4111.

Special requirements and deadlines apply to UC Berkeley-equivalent (XB and XBW) courses. For further information refer to p. 230 or extension.berkeley.edu/info/enrollment.html#refunds.

Refunds for Classroom and Hybrid Courses

Refunds are available for individual courses only. UC Berkeley Extension does not issue refunds for registrations into professional certificates and specialized programs of study. If students enroll in a course and then cannot attend, they may request a refund within the following guidelines. Any refund is subject to a nonrefundable processing fee. The standard refund processing fee is $50 per course. For certain courses, special refund policies and fees apply. See individual course descriptions.

Not receiving an enrollment confirmation before the course begins is not justification for seeking a refund.

Refunds for Online Courses

For fixed-date online courses, students can request refunds up to five business days after the course start date. For example, if the course starts on a Thursday, students must request their refund by the close of business on the following Thursday (Pacific time). As another example, if the course starts on January 18, students must request their refund by the close of business on January 25 (Pacific time).

For self-paced online courses, students can request refunds up to five business days after their Welcome Letter has been e-mailed. For example, if a student’s Welcome Letter is e-mailed on a Thursday, he or she must request a refund by the close of business on the following Thursday (Pacific time). As another example, if the Welcome Letter was e-mailed on January 18, students must request a refund by the close of business on January 25 (Pacific time).

If it is necessary for UC Berkeley Extension to cancel a course, the full course fee will be refunded. We do not reimburse travel or accommodation costs or any expense other than the full course fee in the event of course cancellation. We do not reimburse textbook fees. Please use Specialty Books to ensure the ability to return a book if the class should cancel.

To Request a Refund

Students can request a refund in person at any of our Extension centers or by calling (510) 642-4111. Students may also write to the Registrar’s Office, UC Berkeley Extension, Suite 110, 1995 University Ave., Berkeley, CA 94704-7000, or fax a request to (510) 642-0374. Students can also send an e-mail request to refund@unix.berkeley.edu. Be sure to include student name; the name and EDP number of the course; the reason for requesting a refund; and student phone number in case of questions. Failure to include all necessary information may delay processing.
Financial Assistance

Students must be enrolled in a professional certificate to be certified for financial assistance. Financial assistance is not available to international students. Students enrolled in Extension programs are not eligible for federally sponsored financial assistance (Title IV). Extension is not approved to complete loan deferments for federally sponsored financial assistance (Title IV) loans.

Select a Lender to Apply for Alternative Loans

Students are free to borrow from any lender of their choice. We encourage students to review the lender terms and conditions and carefully consider the benefits and repayment information before choosing a lender.

Loans will be certified for a maximum of the total amount of course fees and $150 per course for textbooks. In order for the loan to be certified, please provide a class list with the classes students propose to fund with their loan. Students must maintain satisfactory academic progress in their professional certificate in order to remain eligible for financial assistance.

Deadline: A student loan must be certified by Extension and approved by the bank at least four weeks prior to the first enrollment deadline. Students must pick up their check from our main office in Berkeley, Monday–Friday, 8:30 am–4 pm, except holidays. Payee’s valid photo ID is required for check release. Before the current term’s check can be released, students must demonstrate their intent to enroll by paying for at least one class during the term.

Contact Extension at finasst@unex.berkeley.edu for more information.

Satisfactory Academic Progress

For financial assistance purposes, satisfactory academic progress is defined as a minimum half-time course load of successfully completed coursework as defined by the professional certificate for a minimum of two terms per calendar year. Students are required to maintain satisfactory academic progress for loan eligibility.

Veterans’ Educational Benefits

Please call (510) 642-4172 for a list of certificates, programs, and courses approved under the veterans’ educational benefits program. Students should contact the VA at (800) 827-1000 for information about their qualifications to determine the appropriate benefits and obtain authorization or proof of eligibility. UC Berkeley Extension cannot provide information about benefits, but please contact Registration at (510) 642-4111 for course information.

If students are eligible to be reimbursed for online courses under the Defense Activity for Non-Traditional Education Support (DANTES), they should contact their military education officer.

Extension fees are not eligible for waiver under the benefits provided through Cal-Vet nor for veterans’ dependents under the California Education Code.

Verification of Enrollment

Submit loan deferment forms, insurance forms, and other such documents to the Registrar’s Office, Attn: Records, UC Berkeley Extension, 1995 University Ave., Suite 110, Berkeley, CA 94704-7000. Verification of student record information for Employment and Background reviews will require a fee and a signed release form from the student. Please include a transcript request form (located at extension.berkeley.edu/info/transcript.pdf) along with other necessary forms and allow 15 business days for processing. Students can find fee information on the transcript request form.

UC Berkeley Extension is not approved to complete loan deferments for federally sponsored financial assistance (Title IV).

Full- and Half-Time Study

For financial assistance purposes, UC Berkeley Extension defines full- and half-time study as follows:

<table>
<thead>
<tr>
<th>Student category*</th>
<th>Course type</th>
<th>Full time</th>
<th>Half time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Program for Freshmen and Concurrent Enrollment</td>
<td>Courses numbered 1–199 (undergraduate-level courses)</td>
<td>12 semester units</td>
<td>6.0–11.9 semester units</td>
</tr>
<tr>
<td></td>
<td>Courses numbered 200–299 (graduate-level courses taken through concurrent enrollment)</td>
<td>12 semester units</td>
<td>6.0–11.9 semester units</td>
</tr>
<tr>
<td>Post-graduate certificate enrollees</td>
<td>Courses numbered 300–399 (professional courses in education)</td>
<td>8 semester units</td>
<td>6.0–7.9 semester units</td>
</tr>
<tr>
<td></td>
<td>Courses numbered 400–499 (professional courses in subjects other than education)</td>
<td>8 semester units</td>
<td>6.0–7.9 semester units</td>
</tr>
</tbody>
</table>

*Full- and half-time study is defined either by student category or by course.

Please call (510) 642-4172 or e-mail records@unex.berkeley.edu for information regarding full- and half-time study.

Important: The definition of full-time study differs for international students. International students with a Form I-20 that was issued by UC Berkeley Extension must be enrolled full time and must file a study list every term. For international students in concurrent enrollment, the full-time load is dependent on the load requirements of the sponsoring department.

Disabled Student Services

UC Berkeley Extension makes arrangements to ensure access to our courses to everyone, including individuals with limited mobility, impaired hearing or vision, or learning disabilities.

If a student has special needs, they should notify Extension at least three weeks before the beginning date of the course. Call (510) 642-5732, fax (510) 642-0374; write to Registrar, Attn: Special Needs, UC Berkeley Extension, 1995 University Ave., Suite 110, Berkeley, CA 94704-7000; or e-mail info@unex.berkeley.edu.

Most courses meet in barrier-free buildings. With at least three weeks’ advance notice we can make arrangements for access at other locations, as well as provide American Sign Language interpreters, note takers, or other forms of assistance.

To communicate a specific concern with this process, please refer to extension.berkeley.edu/info/geninfo.html#disabled.

Concurrent Enrollment

UC Berkeley campus courses are open to the public on a space-available basis through Extension’s Concurrent Enrollment program. Students should contact their academic adviser or articulation officer before they enroll about transfer credit to see if Concurrent Enrollment will work for their goals.

Note: This program is for fall and spring terms only. For Summer Sessions, please refer to summer.berkeley.edu.

To be approved for Concurrent Enrollment, students must meet all course prerequisites; transcripts or other documentation may be required before the application can be approved. The course instructor, department chair, and, in some cases, the dean of the school or college must approve the concurrent enrollment application. Students are considered an Extension student when they enroll through Concurrent Enrollment; thus, Extension maintains the transcript of record. Being approved for Concurrent Enrollment does not constitute admission to UC Berkeley as a regular student.

Note: The Academic Senate regulation A208 requires that UC Berkeley equivalent coursework and grade points undertaken through Extension by UC Berkeley matriculated undergraduates be included on the Berkeley transcript.

Concurrent Enrollment fees and deadlines for application, payment, refund request, and change of grading option are listed on the Web at extension.berkeley.edu/info/concurrent.html. Late applications are not accepted.

For frequently asked questions about Concurrent Enrollment, please visit the website at extension.berkeley.edu/info/concurrent.html#faq, or contact us at concurrent@unex.berkeley.edu.

International Students

For an international student application form, please visit extension.berkeley.edu/international or contact the UC Berkeley Extension International Student Administrative Services Office at (510) 642-2594 or intl_students@unex.berkeley.edu.

Note: F-1 students who receive I-20s from the University of California Berkeley Extension must be enrolled full time and must request letter grades for all courses.

238 FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU
Professional Certificates, Specialized Programs of Study, and Other Curricula

Curricula
UC Berkeley Extension offers professional certificates and other organized curricula in a variety of subject areas (for the complete list, see pp. 270–271). Each certificate or program is described further in its relevant section of this catalog. UC Berkeley faculty serve as consultants on curriculum development for Extension professional certificates and occasionally for specialized programs of study.

Getting Started
Consult the certificate’s or program’s description in this catalog for recommended beginning courses.

Registration Procedures
We recommend that students register for certificates and specialized programs of study before they begin their third course. To register for the certificate or program, please print out and complete the Registration Form at extension.berkeley.edu/cert/cert.pdf. Mail it as indicated and include the registration fee. Students can also complete the form and submit payment online at extension.berkeley.edu/cert/register.html. Find the professional certificate or specialized program of study, and click on the title to access the registration form.

Some certificates and specialized programs of study require application for candidacy before beginning the program; please read individual program descriptions and requirements carefully.

Program requirements may be updated based on new developments in the field of study; we recommend completing the program in a timely fashion.

Fees
The registration fee for professional certificates is $150; the registration fee for specialized programs of study are $100 or $50 depending on the specific program.

All fees must accompany the registration for professional certificates and specialized programs of study. All fees are subject to change without notice.

Requirements
See the individual certificate or program descriptions throughout this catalog for required and elective courses.

A grade point average of 2.5 is the minimum required for completion of a certificate or program, and each course in any certificate or program must be completed with a grade of C or better. Higher grades are required in some programs.

For information on semester units, continuing education units (CEUs), and course grading, please see the information on credit (p. 237) and grades (p. 238).

Preparation
For many professional certificates, a college degree or comparable professional experience is recommended. Some certificates have more specific prerequisites; please review the descriptions.

Substitutions, Waivers, and Transfer Credit
Students must contact the program director prior to beginning the professional certificate to request a course substitution, waiver, or transfer credit. Students must include detailed information about the professional certificate credit course requirement that they are requesting to substitute or waive, and detailed information about the credit course or transfer credit that they request to serve as a substitution. Requests for course substitutions, waivers, and transfer credit must be approved in advance by the program director and department director.

Substitution: Students may request to substitute a course requirement in a UC Berkeley Extension professional certificate with another credit course that is equivalent in content and credit semester units/hours. A substituted course must be another credit course either at UC Berkeley Extension or it can be transferred in from another regionally accredited academic institution (see Transfer Credit below).

Waivers: Students who possess a license or credential in a particular subject area or professional field may request to have a professional certificate course requirement waived. When a course is waived, the semester units/hours of the waived course must be made up by taking another credit course. When requesting a course waiver, students must provide the program director with documentation of their relevant credential or license.

Transfer Credit
1. For transfer credit, students must provide the program director with an official copy of their transcript from a regionally accredited university or college, and the course description for the course they wish to transfer.
2. Transfer credit will only be accepted if:
   • All coursework was completed prior to the student beginning the professional certificate at UC Berkeley Extension.
   • All coursework does not exceed one-fourth (¼) of the total number of semester units/hours of the professional certificate.
   • Students have obtained a “B” or better grade in all coursework.
   • All coursework was completed from a regionally accredited university or college.
   • All coursework was completed within five years of beginning the professional certificate at UC Berkeley Extension.
3. Accepted transfer credit within the UC system will be calculated into the student’s professional certificate GPA.
4. Accepted transfer credit from institutions outside of the UC system will not be calculated into the student’s professional certificate GPA.
5. After a student has started their professional certificate at UC Berkeley Extension, no transfer credit will be allowed into the certificate, and students must complete the remainder of their requirements at UC Berkeley Extension.

In some cases, there is a fee to waive or substitute courses. As a general rule, substitutions, waivers, and transfer credit are not permitted for courses in specialized programs of study. Contact the program director for further information.

Conversion of Semester and Quarter Units

Semester-unit equivalents in quarter units:

<table>
<thead>
<tr>
<th>Semester units</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter units</td>
<td>1½</td>
<td>3</td>
<td>4½</td>
<td>6</td>
</tr>
</tbody>
</table>

Online Professional Certificates
Several professional certificates are offered online. For more information, visit extension.berkeley.edu/online, or call the department offering the program. Please note that veterans’ benefits do not apply to all online courses and curricula.

Obtaining the Certificate or Award of Completion
When students have satisfied their certificate or program course requirements, they should notify their academic department.

Transcript Notation
Completion of the professional certificate is noted on a student’s permanent record (transcript).

Course Credit and Grades

Academic Standards
Undergraduate and graduate credit courses numbered X, XB1–199, and XBW1–199 and the Extension instructors who teach them are reviewed and approved by the appropriate academic department on the UC Berkeley campus and by the Committee on Courses of Instruction (COCI) of the UC Berkeley Academic Senate. The UC Berkeley Academic Senate delegates authority to the Dean of UC Berkeley Extension to approve professional, post-graduate credit courses that are numbered X300-499 and all noncredit courses.

This oversight by University faculty is assurance of excellence in course content and quality of instruction.

This Course Is Under Review for Credit Approval
This designation appears for new courses that are still undergoing review for academic credit approval at the time of catalog publication. For further information about the academic credit approval status of these courses, please see updated information on the Web.

Instructor Approval Pending
This designation appears before an instructor’s name if the campus department has not yet approved the instructor. Each time an instructor teaches a new course, approval needs to be obtained. Therefore, this designation may appear before the names of longtime, highly experienced instructors, as well as those new to Extension.

Academic Credit
UC Berkeley Extension does not grant degrees, but many Extension courses carry academic credit that may be applied toward a degree, professional licensing, or other professional requirements or completion of an Extension professional certificate or specialized program of study.

Application of Credit Toward UC Degrees
In certain cases, credit earned in UC Berkeley Extension undergraduate courses (those numbered X1–X199) may be applied toward bachelor’s degrees at the University...
of California by students entering the University. In certain cases, UC Berkeley Extension credits earned in undergraduate courses numbered XB1–XB199 and XBW1–XBW199 may be applied toward subject requirements for bachelor’s degrees at the University of California. Students should inquire at the Office of Undergraduate Admissions of the respective University of California campus for specific information regarding University admission and the requirements of its schools and colleges. UC Berkeley’s Office of Undergraduate Admissions is located at 110 Sproul Hall. Contact them online at http://students.berkeley.edu/admissions/index.asp or by phone (510) 642-3175.

Credit for courses in the X200 and X400 series may be acceptable toward the B.A., B.S., teaching credential, and postgraduate programs within the limitations prescribed by the various University of California colleges and schools. The University of California campuses use the same procedures to evaluate and determine the suitability of Extension credit courses to fulfill subject requirements as they do for credits gained at other regionally accredited institutions. If accepted, grade points for courses taken at UC Berkeley Extension are not counted toward fulfilling requirements for the degree (see exceptions below for UC Berkeley-matriculated students).

Applying credit for UC Berkeley Extension courses (X200–299) toward a graduate degree, including concurrent enrollment courses, is subject to the approval and regulations of the concerned campus Graduate Council. Students who have already been admitted to the University of California (including students on leave) must have prior written approval from the dean of their school, college, or academic adviser in order to apply credit earned at UC Berkeley Extension toward graduate degree requirements. Students admitted for a future term to the University of California campus should check with a college adviser prior to enrolling at UC Berkeley Extension. Credit for X300-399 series courses is not acceptable toward a graduate degree.

Note to UC Berkeley–matriculated students: As a condition of enrollment in Berkeley-equivalent (XB and XBW) courses, all UC Berkeley–matriculated undergraduate students (except those in dismissal status and those who have already completed a UC Berkeley undergraduate program) will automatically have all concurrent enrollment and Fall Program for Freshmen coursework included with grade points on their Berkeley campus transcript as stipulated by UC Berkeley Academic Senate regulation A208. All other coursework will only appear on a student’s UC Berkeley Extension transcript.

Application of Credit Toward Degrees at Other Institutions

Other institutions may accept UC Berkeley Extension credit toward an undergraduate degree, but acceptance is always determined by the institution to which the student is applying. Policies regarding the acceptance of Extension credit toward graduate degrees vary widely among institutions and individual programs. Check with the institution before enrolling in an Extension course.

Application of Credit or Noncredit CEUs Toward Licensing and Other Requirements

When courses in this catalog have been approved by government agencies, professional associations, and other authorities as meeting their educational criteria, a statement to this effect appears in the section of this catalog in which the courses are listed. In other cases, it is best to check with the appropriate organization before enrolling to be sure that the course is acceptable.

Credit Value and Department

If a course is given for credit, the amount of credit offered and the UC Berkeley academic department in which credit is granted are shown in parentheses after the course number. Credit is in semester units. For courses carrying academic or professional-level credit, the University’s standard formula for one unit of credit is 15 hours of instructional time, plus two hours of study time for each hour of instruction. Thus, a one-unit course is 15 hours of instruction and 30 hours of study outside of class, for a total of 45 hours of course effort. Some courses, such as studios or labs, will require more instructional time and less study time. The title of each credit course in the catalog is followed by a course number with a letter prefix and sometimes a letter suffix: for example, Analytic Geometry and Calculus, XB101A.

Course numbers: The course number indicates the level of instruction as follows:

- X, XB1–99, XBW1–99: Lower-division credit courses at the level of the first two years of college
- X, XB100–199, or XBW100–199: Upper-division credit courses at the level of the second two years of college
- X200–299: Graduate-level credit courses ordinarily open only to students who have completed at least 18 upper-division units basic to the subject matter of the course.
- X300–399: Professional credit courses in education for teachers and school administrators.
- X400–499: Professional, postgraduate credit courses in a variety of fields (other than education) such as the arts, behavioral and health sciences, biological and physical sciences, business and management, computer technology, information systems, engineering, landscape architecture, writing and publishing, and more.

X Prefix

The course number prefix X indicates a course that originates at UC Berkeley Extension.

XB and XBW Prefixes

The course number prefixes XB and XBW indicates an Extension course that is equivalent to the campus course with the same content, title, number, and credit value offered to UC Berkeley students. The course number prefix XBW indicates an XB course that is offered either fully or predominantly online. Special regulations and deadlines apply to XB and XBW courses. For further information, visit extension.berkeley.edu/info/enrollment.html#xb.

Letter Suffixes

The course number suffix, usually a letter A, B, or C following the number, shows that the course is part of a series. The A portion is prerequisite to the B portion, and so on, unless the course description states otherwise or the student has the instructor’s or academic department’s permission to enroll.

Noncredit Courses

Students may take any credit course on a not-for-credit basis. If students opt to change from credit to not-for-credit basis they must do this before the last class meeting or by the deadlines established for XB courses located at extension.berkeley.edu/info/enrollment.html#xb. In addition, there are three categories of noncredit courses at UC Berkeley Extension.

Continuing Education Units

Continuing education units (CEUs) are a nationally recognized means of recording noncredit study. They are accepted by many employers and relicensure agencies as evidence of a student’s serious commitment to career advancement and the maintenance of professional competence. The letters ceu and a number following a course title identify a noncredit course in which students can earn continuing education units. One CEU is awarded for 10 instructional hours.

Courses Numbered 800–899

While not offering credit, these professional courses may be taken for a letter grade or for CEUs. Extension does not award both a grade and CEUs for the same course.

Unnumbered Courses

Unnumbered courses that carry no academic credit, grades, or CEU values will not be recorded on a student’s transcript. Unnumbered courses that carry CEU values will be recorded on a student’s transcript. Most unnumbered noncredit courses are related to personal enrichment topics.

Grades

If enrolled for credit, students must meet the attendance, participation, and course requirements set by the instructor. An official grade report will be mailed to students via the U.S. Mail. If students have any questions, please write or call the Registrar, UC Berkeley Extension, 1985 University Ave., Suite 110, Berkeley, CA 94704-7000, (510) 642-4172, or e-mail registrar@unex.berkeley.edu.

Grading System

We assume that if students enroll for credit they want a letter grade, but in some courses students may ask for a passed/not passed grade instead. If so, be sure to tell the instructor before the final meeting. If students plan to apply that credit toward a degree or professional certificate, they should first make sure that a passed/not passed grade will be accepted; we cannot change it to a letter grade after recording it.

Letter Grades

A. Excellent
B. Good
C. Fair
D. Barely passing
F. Failure
A plus or minus may be recorded.

Passed/Not Passed Grades

P. Passed (equivalent to a C-minus or higher)
NP. Not passed (lower than C-minus)
**Other Letter Designations**

W—Withdraw without academic penalty. Prior to the last class meeting, complete and submit a petition to withdraw, located at extension.berkeley.edu/info/petition_to_withdraw.pdf. Special withdrawal deadlines apply to XB and XBW courses. Visit extension.berkeley.edu/info/concurrent.html#schedule e-mailing for details.

NC—Not for credit. Signifies attendance but not completion of credit requirements.

I—Incomplete. If left unresolved, an Incomplete grade (I) in any course automatically converts to Failure (F) after one year and becomes part of the student’s permanent academic record. An “I” designation will be issued only if:

1. Students present extenuating circumstances to their instructor(s) for not completing the course by the final class meeting date or by the online course end date.
2. Students have completed 75 percent of the assignments (or projects) at least three weeks prior to the final class meeting or online course end date.
3. Students have made prior written arrangements with the instructor(s) to make up any missed work within three months of the final class meeting date or online course end date.
4. Students complete the petition form located at extension.berkeley.edu/info/petition_for_incomplete.pdf, as documentation of their written arrangement with the instructor(s) and give it to their instructor(s) by the final class meeting date or by the online course end date. Online students can forward the completed petition form to their instructor(s) by either printing and faxing it to them or e-mailing it to them as an attachment.
5. Online Students Only: Please note that once enrollment expires or a grade of I or NC is recorded, students will no longer have access to the online classroom and the message board. Students must coordinate with their instructor to copy or print out any information from the online classroom or the message board that they will need for reference as they continue with their coursework beyond their enrollment period. Call the Online department for more information at (510) 642-7343 or visit extension.berkeley.edu/info/grades.html.

**Grade Points and Averages**

The University’s scale of grade points is A = 4, B = 3, C = 2, D = 1, F = 0. Grades with a plus sign (such as B+) carry ½ point more per unit; minus grades (such as A−) carry ½ point less. (An A+ counts as 4.0.) Grade point averages are computed on the basis of grades and number of units.

**Final Grade Reviews and Appeals**

All student grades are final when submitted by the instructor to UC Berkeley Extension at the end of the course. Students can only request a grade review in certain circumstances. Grounds for requesting a grade review at the end of the course include:

1. Application of nonacademic criteria—such as consideration of race, politics, religion, gender—not directly reflective of performance related to course requirements.
2. Sexual harassment.
3. Clerical or procedural error in the calculation of the student’s final grade.

Students should first consult their instructor if they have a question about their final grade. If the situation is not resolved at the instructor level, students should contact their program director to request a grade review within 30 days after receiving their final grade report. The program director conducts the grade review and informs students of his or her decision, including any remedies if applicable, within 30 days of receiving the request for review. Students can request to appeal the program director’s decision by submitting a letter addressed to the Associate Dean, University Extension, 1995 University Avenue, Suite 110, Berkeley, CA 94704-7000. The associate dean reviews the request for appeal, conducts an investigation, and makes a decision—including any remedies if applicable—within 30 days of receiving the request for appeal. The associate dean makes the final decision for unresolved grade appeals for all students enrolled in UC Berkeley Extension courses.

**Final Examinations for Online Courses**

Most online and independent learning courses require students to take a final examination under the supervision of a proctor in order to receive credit for the course. Please check course section information for details.

Students must request and receive approval from their instructor before the exam is sent to the proctor. When students have successfully completed all of the coursework, they may request their final exam from the classroom access page.

Students take examinations under the supervision of a proctor. Extension has authorized proctor centers, or students may find an authorized proctor who meets the needs of their schedule and location. Exams may be proctored by any one of the following:

- High school principal or administrator
- College or university faculty member or administrator
- U.S. embassy or consular officer (if overseas)
- Military chaplain or education officer (if students serve in the armed forces)

If there is a charge for examination supervision, students are responsible for the fee. Under no circumstances can a family member or tutor serve as proctor, nor can the exam be sent to a home address.

UC Berkeley Extension reviews each proctor selection, and should students choose someone not previously authorized to proctor, Extension sends verification forms to that person. These forms must be completed and returned to Extension. Please allow up to three weeks for this process or longer if outside of the country. Extension sends the final exam to the approved proctor, who monitors students during the exam and returns the exam to us. Extension then forwards exams to instructors for grading.

**Change of Student Information**

If a student has moved since they last enrolled with Extension, please submit a Change of Permanent Student Information form, so that we may update the permanent student record. This address will be used to send an official grade report. The form is available online at extension.berkeley.edu/info/change.pdf and at UC Berkeley Extension centers, or students may have it mailed to them by calling (510) 642-4111. Important: The completed form must include a student signature.

**Transcripts and Records**

**Records**

We maintain permanent academic records for Extension students who have completed credit courses and noncredit courses numbered 800–899, and for students who sign the official final roster to record their noncredit continuing education unit (CEU) study.

**Standard Request**

Our Records Office provides transcripts for a fee of $15 each. Student transcripts will be mailed via first class U.S.P.S. mail within 10–15 business days of receipt of payment.

**Next Business Day Service**

Student transcripts will be mailed via first class U.S.P.S. mail the next business day after receipt of payment. The cost is the price of each transcript requested plus a $15 surcharge.

**Requesting a Transcript**

**Using the Web**

Students can order transcripts through TranscriptsPlus. Details are available at extension.berkeley.edu/info/grades.html#transcript.

**Mail**

Complete the online Transcript Request form, print it and mail it with payment to UC Berkeley Extension, Registrar’s Office — Department B, 1995 University Ave., Suite 110, Berkeley, CA 94704-7000. Make checks payable to UC Regents. Students may also pay with MasterCard, VISA, Discover, or American Express. Please provide account number and expiration date.

**In Person**

To request a transcript for same-day pickup, go to the Student Administrative Services Office at 1995 University Ave., Ste. 110, Berkeley, CA, between 8:30 am and 3 pm, Monday–Friday. The cost is the price of each transcript requested plus a $15 surcharge.

**Sign the Request**

No request will be honored without the signature of the student whose record is being requested. Electronic signatures cannot be accepted.

**Partial Transcripts**

No partial transcripts will be issued. UC Berkeley Extension does not issue in-progress transcripts. Students may use either the Enrollment Confirmation or request a Statement of Fees Paid letter to confirm their current enrollment status.

**Holds**

A hold may be placed on student records and no request for transcript will be granted until all outstanding debts to the University are paid in full. A hold may be placed on transcripts for student conduct code violations. See p. 240 for more information.
Classroom Recording Policy

UC Berkeley Extension classrooms may be rented for meetings and training sessions on a space-available basis. Please inquire via e-mail to rentals@unex.berkeley.edu.

Library Use

Extension students can use the libraries on the UC Berkeley campus. To apply for borrower’s privileges at the circulation department of the Doe Library, bring enrollment confirmation and a valid California driver’s license. Students are eligible for a reduced fee of $25 for six months, payable with a money order or check imprinted with student name and address (cash cannot be accepted).

Textbooks

Textbook information is available on the course pages of the UC Berkeley Extension website. Students may purchase textbooks from any source. However, students should note that the ISBN when making purchases, as publishers frequently update editions. We recommend that students confirm the vendor’s exchange and return policy.

Please visit UC Berkeley Extension’s preferred online bookstore at specialty-books.com/cgi-bin/ic/unex. Specialty Books uses Extension’s class and book lists to ensure students receive the correct books for their class. Used copies are made available whenever possible. The Specialty Books FAQ section contains information on returns, exchanges, buy-backs, payment options, and more. If the course is cancelled, Specialty Books will allow book(s) to be returned. Other bookstores may not be so accommodating.

Privacy

The UC Berkeley Extension Dean’s Office is responsible for maintaining Extension student records, and any questions about them should be addressed to the Dean’s Office in writing. The policy governing the disclosure of information from student records is available at extension.berkeley.edu/info/policies.html#privacy. The policy provides for the right of students to be informed about where student records are located, to review their own records, to request corrections, or to grieve alleged violations of privacy, to consent to disclosures of personally identifiable information, and to file complaints with the U.S. Department of Education. The Dean’s Office has designated student names, e-mail addresses, terms of attendance, and major fields of study as public information under the policy.

Student Social Security Numbers

See “Taxpayers Relief of 1997” on this page.

Policies and Information

Holidays

Our administrative offices will be closed on:

- Winter Break: December 23–24
- Customer service limited to phone and e-mail: December 27–29
- Winter Break: December 30–31
- Martin Luther King, Jr.: January 17
- President’s Day: February 21
- Cesar Chavez Day: March 25
- Memorial Day: May 30

Classroom Recording Policy

With the prior permission of the instructor and the consent of other students in attendance, an enrolled student may make an audio recording of the lecture or class presentations or lectures for note-taking or for commercial purposes is not permitted in Extension classes. For further information visit extension.berkeley.edu/info/policies.html#recording.

Classroom Rental

UC Berkeley Extension classrooms may be rented for meetings and training sessions on a space-available basis. Please inquire via e-mail to: rentals@unex.berkeley.edu.

Discounts

For information on California Alumni Association members and UC Berkeley career staff discounts, visit extension.berkeley.edu/info/enrollment.html#discounts.

Library Use

Extension students can use the libraries on the UC Berkeley campus. To apply for borrower’s privileges at the circulation department of the Doe Library, bring enrollment confirmation and a valid California driver’s license. Students are eligible for a reduced fee of $25 for six months, payable with a money order or check imprinted with student name and address (cash cannot be accepted).

Textbooks

Textbook information is available on the course pages of the UC Berkeley Extension website. Students may purchase textbooks from any source. However, students should note that the ISBN when making purchases, as publishers frequently update editions. We recommend that students confirm the vendor’s exchange and return policy.

Please visit UC Berkeley Extension’s preferred online bookstore at specialty-books.com/cgi-bin/ic/unex. Specialty Books uses Extension’s class and book lists to ensure students receive the correct books for their class. Used copies are made available whenever possible. The Specialty Books FAQ section contains information on returns, exchanges, buy-backs, payment options, and more. If the course is cancelled, Specialty Books will allow book(s) to be returned. Other bookstores may not be so accommodating.

Comments and Feedback

Please e-mail customer service comments and feedback to registrar@unex.berkeley.edu.

Mailing List

When students enroll in or inquire about Extension courses, their name is placed on our mailing list, and they will automatically receive a catalog each term for the next two years. Clip the mailing label and send it to UC Berkeley Extension, CMS Dept., 1995 University Ave., Berkeley, CA 94704-7000 if you want to be removed from the list. UC Berkeley Extension never sells its mailing list, but if students would like to be removed from the list please send us the mailing label with the request. This is the most effective way to ensure we are able to comply with the request.

Safety and Security

The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act requires that institutions of higher education make information regarding crime statistics and campus security available to students. Copies of this information may be obtained at the UC Berkeley Extension Registrar’s Office, 1995 University Ave., Suite 110, Berkeley, CA 94704-7000, or by calling the UC Berkeley Extension Registrar’s Office at (510) 642-4111. Students can also access the report online at police.berkeley.edu/clery/csainfo.html or visit police.berkeley.edu for this and other safety information.

Nondiscrimination Policy

The University of California, in accordance with applicable federal and state law and the University’s policies, does not discriminate on the basis of race, color, national origin, religion, sex (including sexual harassment), gender identity, pregnancy/childbirth and medical conditions related thereto, disability, age, medical condition (cancer-related), ancestry, marital status, citizenship, sexual orientation, or status as a Vietnam-era veteran or special disabled veteran. This nondiscrimination policy covers student admission, access, and treatment in University programs and activities. It also covers faculty (Senate and non-Senate) and staff in their employment. For additional information please refer to extension.berkeley.edu/info/policies.html#nondiscrimination.

Sexual Harassment

Sexual harassment is prohibited both by law and by University of California policy. Sexual harassment is a form of illegal sex discrimination. Unwelcome sexual advances, requests for sexual favors, and other verbal or physical contact of a sexual nature constitute sexual harassment when: 1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s educational status or employment; 2) such conduct has the purpose or effect of unreasonably interfering with an individual’s educational or work performance or creating an intimidating, hostile, or offensive educational or working environment; 3) submission to or rejection of such conduct is used as the basis for employment or academic decisions affecting the individual. For additional information, please refer to extension.berkeley.edu/info/policies.html#sexualharass.

Student Conduct

UC Berkeley Extension, as a unit of the University of California at Berkeley, is a continuing education community committed to maintaining an environment that encourages personal, professional, and intellectual growth. It is a community with high standards and high expectations for those who choose to become a part of it, including established rules of conduct intended to foster behaviors that are consistent with a civil and educational setting. Members of the UC Berkeley Extension community are expected to comply with all laws, University policies, and campus regulations, conducting themselves in ways that support a learning environment. In this context, instructors are guided by UC Berkeley Extension’s instructor conduct policies, and students by the UC Berkeley Extension Code of Student Conduct. This code is available on the Web at extension.berkeley.edu/info/policies.html#conduct.

Taxpayer Relief Act of 1997

Students may be eligible for tax credits through the Taxpayer Relief Act of 1997. To determine eligibility, please contact the IRS, a tax consultant, or an accountant. UC Berkeley reports information to the IRS on all eligible students enrolled for the tax year. Students’ Social Security numbers are required to report this information. For additional information, please refer to the UC Berkeley website at studentbilling.berkeley.edu/taxpayer.htm. To access the 1098-T online, please refer to www.1098t.com, or call 1-877-467-3821.
Location Information

Berkeley
Golden Bear Center
1995 University Ave., Berkeley, CA 94704

Telephone: To enroll, call (510) 642-4111 or visit extension.berkeley.edu/enroll. See p. 234 for enrollment information.

Office hours: Registration hours are Monday–Friday, 8 am–5 pm, except holidays (see p. 240).

Access to Classroom Facilities
For main offices, second-floor classrooms, and enrollment/information desk: UC Berkeley Extension, Golden Bear Center, 1995 University Ave., see map above. Students taking evening classes should use the far right elevator to access classrooms on the second floor.

Public Transportation
For questions about public transit, call BART information at (510) 465-2278 or AC Transit information at (510) 891-4700 or 511.

Within the East Bay: Several AC Transit routes serve the Berkeley campus from various points throughout the East Bay. The Downtown Berkeley BART station is one block west of campus.

From San Francisco and Southern Alameda County: Take a Richmond-bound BART train to the Downtown Berkeley station, located one block from campus at Center St. and Shattuck Ave. Or take AC Transit route F from the San Francisco Transbay Terminal (First St. and Mission St.) to downtown Berkeley.

From Central and Eastern Contra Costa County: Take a San Francisco/Millbrae-bound BART train to the MacArthur station. Transfer to a Richmond-bound train to the Downtown Berkeley station at Center St. and Shattuck Ave., one block from campus.

Parking Shuttle Services: BearTransit is UC Berkeley’s shuttle system servicing the campus and vicinity. Anyone can ride the shuttles, which provide transportation between points on campus, Downtown Berkeley BART, parking lots, Clark Kerr campus, the Hill area, residence halls, Richmond Field Station, and the north and south sides of the campus. Two perimeter shuttles, the “P” and “R” lines, circle the campus to and from the Downtown Berkeley BART station at 12- and 24-minute intervals. BearTransit is free with a BearTransit Shuttle Pass, the faculty/staff Bear Pass, the student Class Pass, or an emeriti ID card; it is $1 without a pass.

Parking and Near the Campus
Parking and Transportation (P&T) office: 2150 Kittredge Street (at Fulton), (510) 643-7701.

Office hours: Monday–Friday, 7:30 am–4:30 pm.

Parking information is current as of publication of this catalog; please call P&T for current information, or check the website at pt.berkeley.edu.

Campus parking map: For a parking map of campus, please visit publicsafetyandtransportation.berkeley.edu/pstmaps/media/CampusParkingMap2005.pdf. Central Campus lots are marked accordingly or with a “C.” Lots adjacent to campus are marked for “Faculty/Staff” or “Student” permit types (see areas marked on map, p. 240).

Parking restrictions: Parking is not allowed in the following areas: reserved spaces, lots posted with signs stating “Warning: Restricted to Central Campus Permit Holders,” colored curbs, and unmarked areas. During special events, increased fees and/or special permits may be required or parking may be restricted or suspended.

Public transportation: Public transportation is available in municipal lots and garages around the campus. For maps and current information, please refer to public-safety.berkeley.edu/PDFs/ParkingMap2005.pdf.

Access for Students with Disabilities
For information about wheelchair-accessible campus buildings, call the Disabled Students Program, (510) 642-0518 or visit www dsp.berkeley.edu. See p. 236 for information about the accessibility of UC Berkeley Extension courses. See also the information under Campus Night Safety, below.

Campus Nighttime Safety and Services
The Night Safety Shuttle is a shuttle bus that travels short distances to and from the campus at night. For information, call (510) 648-SAFE (648-7233) or visit pt.berkeley.edu/around/transit/shuttles.

A nighttime walk map, available upon request, shows the most frequented and well-lit walk routes through campus. Plan to walk through campus using these routes. Walk accompanied by an escort or friend at all times. To request the nighttime walk map, call (510) 642-4111 or pick up a copy at the UC Berkeley Extension registration desk.

BearWALK (Night Safety Escort) Service is available on campus seven nights a week. To obtain an escort, stop at one of the Community Service Officers, or call (510) 642-WALK (642-9255). Community Service Officers are uniformed, radio-equipped student employees of the UC Police Department. Students may see them patrolling the night walk routes.

Note: Some of the night walk routes include areas with steep slopes. Persons with disabilities are particularly encouraged to use the night escort service in order to take advantage of some of the more accessible routes not included in the night walk routes.
GENERAL INFORMATION

FOR COMPLETE COURSE AND SCHEDULE INFORMATION VISIT EXTENSION.BERKELEY.EDU

UC Berkeley Campus
Alumni House .............................................. D-3
Bancroft Library ........................................ C-4
Barker Hall .............................................. B-2
Barrows Hall ............................................. D-4, 5
Bechtel Engineering Center ...................... B-5
Biochemistry Building ................................. B-2
Boalt Hall (Law) .......................................... D, E-6
Campanile ................................................ C-5
Clark Kerr Campus (access to) ................. C-5
Cory Hall ................................................... B-5
Davis Hall .................................................. B-5
doe Library .............................................. C-4
Dwinelle Hall ............................................. C, D-3
Etcheverry Hall .......................................... A-4
Evans Hall .................................................. B-5
Faculty Club .............................................. C-5
Genetics and Plant Biology Building ........ B-2
Giannini Hall ............................................. B-3
Haas School of Business ......................... C, D-6
Haviland Hall .......................................... B-3, 4
Kroeber Hall ............................................. D-5, 6
Lawrence Hall of Science (access to) .... C-7
Le Conte Hall ............................................. C-5
McCone Hall (Earth Sciences) ................. B-4
Moffitt Library ........................................ C-3, 4
Morgan Hall .............................................. B-2
Morrison Hall .......................................... D-5
Mulford Hall ............................................ B-2
North Gate Hall ........................................ B-4
Pimentel Lecture Hall ............................... B, C-5, 6
Sather Gate .............................................. B-4
Tolman Hall ............................................. B-3
UC Berkeley Extension, see map on previous page
Valley Life Sciences Building .................. C-3

Warren Hall ............................................. B-2
Wellman Courtyard ................................ B-3
Wheeler Hall ........................................... C, D-4
Wurster Hall .......................................... D-5, 6

Key to Auto Access and Parking
The numbers show the location of campus entrances and parking lots on and near the campus.
West Gate .............................................. 1
East Gate .............................................. 2
Faculty/Staff lots and Student Fee lots .... 3
Public Parking .......................................... 4
Martin Luther King Jr. Student Union Garage ... 6

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Belmont
Belmont Center
1301 Shoreway Road, Suite 400
Belmont, CA 94002
Telephone: To enroll, call (510) 642-4111 or visit extension.berkeley.edu. See p. 234 for enrollment information.
Office hours: Open when classes are in session and some additional weekday hours. Please call ahead if visiting outside of class times.

Auto Access
From U.S. 101 southbound: Take the Ralston Ave. exit, turn left on Ralston, and continue on Marine Parkway. Turn right on Shoreway Road.
From U.S. 101 northbound: Take the Redwood Shores Parkway exit, then merge onto Holly St. Turn left at Shoreway Road.

Parking
Parking is free at the Belmont Center.

Public Transportation
For CalTrain schedule information, call (800) 680-4287 or visit www.caltrain.com or write CalTrain, 1250 San Carlos Ave., San Carlos, CA 94070. For SamTrans information, call (800) 660-4287 or visit www.samtrans.com.

Access for Students with Disabilities
See Disabled Student Services, p. 238, for information about the accessibility of UC Berkeley Extension courses.

San Francisco
Downtown Center
425 Market St., 8th Floor
San Francisco, CA 94105
Telephone: To enroll, call (510) 642-4111 or visit extension.berkeley.edu/enroll. See p. 234 for enrollment information.
Office hours: Monday–Friday, 12–10 pm; closed Friday; open Saturday, 10 am–5 pm. The Open Lab is for Extension students enrolled in courses with an Open Lab component.

Access to Classroom Facilities
While the physical address is 425 Market St., 8th Floor, the entrance is on Fremont St. Once inside the building, take the elevator on the far left (labeled Floors 3–15) and get off on the 8th floor. Room numbers are provided in course descriptions and on the schedules posted at the center. Please bring a valid photo ID to show at the security desk.

Access for Students with Disabilities
See Disabled Student Services, p. 238, for information about the accessibility of UC Berkeley Extension courses.

Auto Access
From U.S. 101 northbound: Take U.S. 101 north to I-80 east. Take the Fourth St. exit. Freeway exits onto Bryant St. Follow Bryant to Third St. Make a left on Third. Go to Folsom. Make a right on Folsom. Go to Fremont. Make a left on Fremont. The parking garage is located on Fremont St. before reaching the entrance to the building.

Parking
There is a parking garage beneath the building. Access is from Fremont St.; cars parking in the garage are subject to search. The garage is open Monday–Saturday. There is no entry into the parking garage after 8 pm Monday–Friday, or after 3 pm on Saturday (but cars may exit after this time). A special evening rate is available after 4:30 pm. Parking is also available at other lots in the area.

Public Transportation
Within San Francisco: Muni lines on Market St. include the 6-Parnassus, F-Market, 9-San Bruno, 21-Hayes, 66-Quintara, and 71-Noriega. The Embarcadero BART and Muni metro station is located on Market St. between Second and Third. For schedule and connections, as well as information about Muni service to other classroom facilities, call Muni, (415) 701-2323 or 311 (in San Francisco).
From the East Bay: Obtain information from BART at (510) 465-2278 or AC Transit at (510) 891-4700 or 511. From the Peninsula: Obtain information from SamTrans, (800) 660-4287. From Marin County: Obtain information from Golden Gate Transit, (415) 455-2000 or 511.
GENERAL INFORMATION

San Francisco
Art and Design Center
95 Third St.
San Francisco, CA 94103

Telephone: To enroll, call (510) 642-4111 or visit extension.berkeley.edu/enroll. See p. 234 for enrollment information.

Office hours: Monday–Friday, 8:30 am–5 pm. The center is open later on weekday evenings and on weekends, when classes are in session or when labs are open.

Computer Training Facility Open Lab hours are Monday–Thursday, 12 pm–10 pm; closed Friday; open Saturday–Sunday, 10 am–5 pm. The Open Lab is for Extension students enrolled in courses with an Open Lab.

Access for Students with Disabilities
See Disabled Student Services, p. 236, for information about the accessibility of UC Berkeley Extension courses.

Auto Access
From U.S. 101 north: Take I-80 east to the Fourth St. exit. Freeway exits onto Bryant St. Follow Bryant to Third St., then turn left on Third. The center is on the right-hand side just past Mission St. Drive a half block past the center and turn right on Stevenson to access Hearst Parking Center.

From the North Bay: Take U.S. 101 to Van Ness Ave. Travel south on Van Ness to Eddy St. Turn left on Eddy. Go eight blocks to Fifth St. Turn right on Fifth, cross Market St., and go to Folsom St. Turn left on Folsom St. and go two blocks to Third St. Turn left on Third St. The center is on the right-hand side just past Mission St. Drive a half block past the center and turn right on Stevenson to access Hearst Parking Center.

From the East Bay: Take I-80 west to the Fifth St. exit. Bear right on Fifth and follow it to Folsom St. Turn right on Folsom and go two blocks to Third St. Turn left on Third St. The center is on the right-hand side just past Mission St. Drive a half block past the center and turn right on Stevenson to access Hearst Parking Center.

Parking
There are public parking garages near the building. Discount parking (validation required) is available to Extension students Monday–Friday after 3 pm and Saturdays at the Hearst Parking Center. From Third St. at Mission, drive a half block north past the center and turn right on Stevenson to access Hearst Parking Center.

Public Transportation
Within San Francisco: Muni lines on Market St. include the 6-Parnassus, F-Market, 9-San Bruno, 21-Hayes, 66-Quintara, and 71-Noriega. The Montgomery St. BART and Muni metro station is located on Market St. between Second and Third.

For schedule and connections, as well as information about Muni service to other classroom facilities, call Muni, (415) 701-2323 or 311 (in San Francisco).

From the East Bay: Obtain information from BART at (510) 465-2278 or AC Transit at (510) 891-4700 or 511.

From the Peninsula: Obtain information from SamTrans, (800) 660-4287. From Marin County: Obtain information from Golden Gate Transit, (415) 455-2000 or 511.

The Center for Learning in Retirement (CLIR) Welcomes New Members
People age 50 or older are invited to join CLIR.

Associated with UC Berkeley Extension, CLIR was founded 35 years ago to provide lifelong learning to Bay Area seniors. Our members enjoy discounted enrollment opportunities in Extension courses, which are held throughout the Bay Area.

CLIR offers its members the following:

• Daytime peer classes in a variety of subjects including the arts, drama, history, current events, sciences, and foreign languages

• Opportunities to share individual professional and academic experience

• Activities including guided neighborhood walks, Northern California day-tours, art museum and gallery visits, book discussion, a movie club, picnics, and a holiday gala

• Free tickets to theater, dance, and music performances are available through an optional program

• Convenient San Francisco location near the Embarcadero and Montgomery Muni and BART stations

Contact us now for membership information.

(415) 543-3965
http://clirsf.org

Center for Learning in Retirement
50 First Street
Suite 300, Room 9
San Francisco, CA 94105
INSTRUCTOR BIOGRAPHIES

Thomas Abate, M.A., explores the new realities of publishing in his blog, MiniMediaGuy. Abate is the former owner of a typesetting and publishing company. He has taught feature writing for UC Extension and was a journalism instructor at College of the Redwoods.

Ron Abusaad, Ph.D., has taught many courses at UC Berkeley, including political science, theory and applications of mass communication, Middle East politics, and Arabic language and culture. Years of experience working with diverse populations have helped shape his multifaceted perspectives and interdisciplinary approach.

Robert Adams Jr., M.S.C.S., M.S.E.E., is currently employed by Northrop Grumman in Baltimore, where he has worked since 1979 as a software programmer, systems designer, systems engineer, and technical lead engineer on numerous defense-related programs. Independently, he does Web programming and consulting and has taught for UC Berkeley Extension for more than 10 years.

Shalini Agrawal, M. Arch., is the principal of a design consulting business in the Bay Area and has worked as an architect in New York and Chicago. She has taught design classes at Chicago’s Columbia College and cofounded a nonprofit organization that partners architects, artists, and designers with community groups to implement changes in their environment.

Erick Ahrens, M.B.A., B.S., is senior business analyst at UCSF, leading development of business intelligence (BI) and data mart. He taught application service provider (ASP) design and development at UC Berkeley Extension. His research interest is Software as a Service (SaaS) for automated compliance with environmental regulations at Instiva.

Nidhi Ahuja, Ph.D., is an instructor at Merritt College where she teaches biological sciences. She has recently completed her postdoctoral studies at UCSF. Her research focuses on bacterial pathogenesis.

Mimi Albert, M.F.A., is a novelist, writer of short fiction and nonfiction, book reviewer, and teacher of creative writing. She has published two novels, The Second Story Man (Fiction Collective, 1975) and Skirts (Baskerville Press, 1994). Both her novels and short fiction have won numerous honors. She has taught creative writing at UC Berkeley Extension for nearly 10 years.

Stephen Albert, M.F.A., is a landscape design consultant and a garden writer based in Sonoma. He works with The Albert Group, a San Francisco project management firm, and is the publisher of Harvestatable.com.

Thomas Albert, Ph.D., is an advisory technical writer at Symyx Technologies, a software company that provides tools for research in chemistry and biology.

Woody Alexander, M.B.A., has administered sales, marketing, distribution, and management responsibilities on regional, national, and international levels. He has expertise in developing sales and marketing management plans; recruiting, hiring, training, and directing employees; sales forecasting; budgeting; accounting, and financial/compensation planning; order development; and implementing systems and procedures.

Peter Alexander, Ph.D., M.B.A., Extension Honored Instructor, has more than 20 years of successful marketing and sales management experience in various industries, including Internet and software development, medical equipment, transportation, and retail.

Cheryl Allen, M.S., PMP, is a project management consultant and trainer specializing in practical management processes for software projects. She has more than 20 years of experience with both the technical and management aspects of software projects. Her training and consulting assignments have covered topics that include software development methodologies and strategic and tactical planning.

Steven Allen, Ph.D., served as program director for the Chemical Dependency Recovery Program at Kaiser Permanente Medical Center, Vallejo, Calif. for the past twenty years. He was also the director for the Central County Community Mental Health Center for Contra Costa County Health Services.

Elizabeth Alii, Ph.D., is a postdoctoral fellow in oncology at Stanford University School of Medicine. She has been involved in cancer research for more than 10 years. Her research interests include the use of personalized medicine to prevent and treat types of breast cancer.

Raja Almukahhal, Ph.D., has worked as a college professor, research analyst, high school teacher, department chairman, content writer/reviewer, author, planetarium director, business education consultant, and an entrepreneur. He has published books on physics and astronomy and is now working on a book in applied calculus.

Ed Alter, B.A., is a trainer and founding partner at Speechskills, LLC. He spent 10 years as a company member of BATS Improv in San Francisco and four years as executive director of the organization. He founded SNAP! Labels and sold it to Adobe Systems in 2002. Alter has received national awards for public speaking and presentation.

Yvette Alva-Campbell, Ph.D., obtained her doctorate in ecology and evolutionary biology at UC Santa Cruz. Her research combines population genetics, ecology, and geology in order to understand the underlying evolutionary mechanisms responsible for dispersal among marine fish that reside in the Tropical Eastern and Tropical Western Atlantic.

John Anderson, M.S., has worked for more than 20 years developing new products for Fortune 50 companies such as Ford and Digital Equipment Corporation. Additionally, Anderson has successfully invented and distributed his own product and helped many Bay Area inventors understand the business and legal requirements necessary for developing an idea into a commercially viable product.

Rebecca Anderson, M.A., LEED AP, is an environmental specialist at UC Berkeley, specializing in air and water protection as well as sustainability for the built environment.

Krikor Andonian, Ph.D., is a plant ecologist with broad interests in biology, ecology, and natural history. He has taught courses in ecology and biodiversity conservation at UC Santa Cruz and abroad at the American University of Armenia.

Mark Angel, B.S., M.B.A., PMP, has more than 30 years of experience in the IT, telecommunications, city government, aerospace, airline, and banking sectors. He is a senior program manager in the telecommunications industry. His expertise includes project management, systems analysis, and system implementation.

Miguel Angeles, M.D., is an instructor at Merritt College and Ohlone College, where he has taught anatomy and physiology. His background as a medical doctor and specialist in obstetrics and gynecology gives his classes a practical approach and use of clinical situations to understand the functioning of the human body.

Marisa Aragona, M.F.A., has had her photo-based work exhibited in New York, San Francisco, Oakland, Washington, D.C., and Seattle. Recent venues include the Marin Museum of Contemporary Art, Mission 17, and Intersection for the Arts.
INSTRUCTOR BIOGRAPHIES

Suzanne Arca, B.A., is a certified horticulturist, landscape designer, and contractor with 27 years of experience in the field. She is owner of Suzanne Arca Design, a Bay Area design/build company. She also serves as a teacher for the horticulture department at Merritt College.

Richard P. Arzaga, B.S., CCIM, CFP®, is the founder and CEO of Cornerstone Wealth Management. In 2008, he was recognized by UC Berkeley as the Instructor of the Year for Personal Financial Planning. He is also one of only four advisors in the past 25 years to receive the Charles L. Herrington Distinguished Advisor Award, and ranks among Worth magazine’s Best 250 Wealth Advisors in the Nation. Arzaga’s education includes a Certificate in Personal Financial Planning from UC Berkeley Extension.

Jared Asch, M.A., has more than a decade of experience in Washington, D.C., and Tallahassee, Fla., serving as a policy advisor and political campaign strategist for several presidential candidates, senators, representatives, and state legislators.

Elie Asmar, M.S.E., PMP, CKM, Extension Honored Instructor, is cofounder and president of Interpro.com, a project knowledge management corporation. He leads teams in developing and implementing strategic initiatives for global organizations in the semiconductor, information technology, and biotechnology industries. Asmar has experience in executive and engineering management training.

Asma Asyed, M.D., is an adjunct professor at Dominican University of California. She teaches human anatomy and conducts research in the area of alcohol addiction. Prior to working at Dominican, Asyed completed a postdoctoral fellowship at the Ernest Gallo Clinic and Research Center and UCSF.

Kathleen Azevedo, R.N., MSN, has taught anatomy and physiology to students interested in pursuing health careers. As a nurse for 30 years, she appreciates the importance of a solid introduction to human anatomy. Azevedo incorporates her experience as a clinical and school nurse in her teaching.

Mark Balabanis, Ph.D., is in private practice in Oakland, Calif., and specializes in cognitive behavioral therapy for adults with mood, anxiety, post-traumatic stress (PTSD), and substance-use disorders. He also worked at the Veterans Affairs medical centers in San Francisco and Pittsburgh, treating veterans with substance-use disorders and co-occurring PTSD.

Robin Ball, Ph.D., has taught neuroscience and physiology courses at UC Berkeley and UC Berkeley Extension. Her research focuses on understanding the cellular pathways that regulate synaptic growth and plasticity.

Andrew Barnett, Ph.D., CPA, Extension Honored Instructor, is a director and professor of the School of Accountancy at San Diego State University. He is a Virginia CPA and a member of the California Society of CPAs, the American Accounting Association, and the American Institute of CPAs.

Julie Barron, B.F.A., is a commercial and residential designer with more than 25 years of experience in space planning, project management, construction administration and environmental consulting. She is a member of IFMA.

Michel Baudin, M.S., has written four books on manufacturing and many articles and papers in various journals. He is a senior fellow of the University of Dayton, and a member of the IMSE External Advisory Board of Ohio University.

Laurie Beasley, B.S., is cofounder and president of Beasley Direct Marketing, Inc. a Silicon Valley direct marketing agency that has managed online and direct mail programs for hundreds of companies. Beasley serves as president of the Direct Marketing Association of Northern California. She is an instructor in direct and interactive marketing at UC Santa Cruz Extension.

Don Beatty, B.A., is a fine-wine/specialty-spirits professional more than 25 years of experience. He has represented dozens of wineries and several world-class spirits houses, including Beefeater Gin and Maison Prunier Cognac. He has produced and run dozens of grand cru, premier cru, high-end wine, and specialty spirits tastings at upscale hotels and restaurants.

Catherine Beegan, M.B.A., has taught university-level courses as an adjunct professor at Marymount University since 1985. She has lectured at Chicago State University, Winona State University, and University of San Francisco. Her career in the financial services industry has spanned 30 years, taking her from being a trust officer at Chemical Bank of New York to a business banking officer at Union Bank. Currently, she consults for small businesses in the Bay Area.

Ryan Bell, M.E.S., has 12 years of experience working with local governments around the country creating greenhouse gas emissions inventories, developing local action plans, and undertaking emission reduction projects. Most recently he led the development of Alameda County’s Climate Action Plan for Government Services and Operations.

Paul Bell-Tull, LCSW, is a clinical social worker in the Chemical Dependency Recovery Program at Kaiser Permanente in San Francisco. He also served as a counselor and director at Sequoia Alcohol and Drug Recovery Center in Redwood City, and in other treatment settings, for more than 20 years.

Ryan Bell, M.E.S., has 12 years of experience working with local governments creating greenhouse gas emissions inventories, developing local action plans, and undertaking emission reduction projects. He led the development of Alameda County’s Climate Action Plan for Government Services and Operations.

Agneta Bendsjö-Schipper, M.A., has taught Swedish and English in Sweden, Paris, and the Bay Area for more than 20 years.

David Berg, E.T., creator of the Making Math Real Multisensory Structured Methods and founder and director of the Making Math Real Institute, has been an educator for 30 years working with all grade levels. He lectures and trains for universities, schools, districts, and LD organizations.

Amy Berk, M.F.A., is an artist, writer, and educator. She is coeditor and one of the founders of the art and culture Web journal Stretchr (www.stretchr.org), runs the Meridian Interns Program; and exhibits her hybrid brand of feminist pop art both nationally and internationally.

Jennifer Berry, B.S., LEED AP, is owner of J. Robin Berry Design

Mark E. Bettini, M.B.A., Extension Honored Instructor, is a graduate of the Haas School of Business and has more than 20 years of accounting and financial experience in the areas of small business consulting, e-commerce, litigation support, and health care. He has taught accounting at UC Berkeley Extension for more than 14 years.

Deborah Biron, B.A., is founder and president of The Speaking Bridge, providing professional training in presentation skills and communication techniques. She has taught voice and presentation skills at Theatre Bay Area, Apple Computer, and PG&E. She also acts and does voiceovers for films and commercials.

Alan Bisarya, M.Ed., taught positive psychology at Harvard University. Bisarya was nominated for the prestigious Joseph R. Levenson Memorial Award for Excellence in Teaching at Harvard.

Angela Blackwell, M.A. in TESOL, has been an ESL/EFL teacher, teacher trainer, and consultant in Britain, France, Spain, and the United States. She has led teacher-training courses and given workshops worldwide. She is author and coauthor of several ELT textbooks.

Ann Blake, Ph.D., is an independent consultant creating practical tools to reduce toxic chemical use in multiple industry sectors. Blake worked for Cal/EPAs DTSC for nine years prior to consulting.
Barbara Blalock, M.A., has worked as a senior project manager for a curriculum development company specializing in Web-based training for high-tech companies and has 15 years of experience in project management in telecommunication and training organizations. She was also president of the California Governor’s Quality Awards Program for four years.

Mitchell Blank, D.C., is an adjunct faculty member at Merritt College teaching all levels of physiology and anatomy courses. He is also a practicing chiropractor with three years of graduate study in anatomy and physiology. He brings to his classes 10 years of clinical experience and a unique understanding of the interrelationship between structure and function.

Raymond Blind, Ph.D., is a postdoctoral scholar at UCSF in the Department of Pharmaceutical Chemistry.

Crystal Botham, Ph.D., is a Tashia and John Morgridge Endowed Postdoctoral Fellow at Stanford University and currently works in vaccine development. She has almost ten years of experience in the biological sciences and her diverse research topics have also included spider silk and bacteria-host interactions.

Christine Bouamaly, M.S., Extension Honored Instructor, is a PMTS at AT&T labs. She has taught for UC Berkeley Extension for more than 15 years. She teaches topics in Java, J2EE, Ajax, and Perl.

Elizabeth Boults, M.A., is a landscape architect specializing in the creation of small-scale artful environments. She has an extensive background in teaching, research, and theory.

Gisèle Bousquet, Ph.D., is a research associate at the Center for Southeast Asian Studies, UC Berkeley, and a lecturer at Sonoma State University. She is the editor of Viet Nam Expose: French Scholarship on 20th-Century Vietnamese Society (University of Michigan Press, 2002).

David Bouvin, M.B.A., D.B.A., CISM, IA (4011), is a professor and executive consultant in Pensacola, Fl.

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Roger Greene, Ph.D., is currently working on a number of issues with the Minnesota Multiphasic Personality Inventory (MMPI-2), such as how to match a specific MMPI-2 to prototypic profiles, the assessment of self- and other-deception, the nature of the critical items, the stability of specific profiles, and whether MMPI-2 codetypes are taxonic or dimensional. He has written a number of books and articles on the MMPI and MMPI-2.

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INSTRUCTOR BIOGRAPHIES

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Tom Kendrick, M.B.A., M.S.E.E., PMP, is a program manager for Visa. He is the author of three project management books, including Identifying and Managing Project Risk (AMACOM, 2003). He has more than 30 years of worldwide project management experience, including 20 years with HP.

Vesta Kirby, M.F.A., is an artist and consultant for color and materials. She has taught at the San Francisco Art Institute, the College of San Mateo, and the Academy of Art University. She has designed corporate interior projects in San Francisco, New York, Paris, Bern, and Tokyo. Her artwork includes acrylic, oil, and watercolor paintings; mixed media; and drawing.

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Mary Ann Koory, Ph.D., Extension Honored Instructor, has a doctorate in literature from UC Berkeley. She credits diverse cultural influences such as the musical Hamlet episode of Gilligan’s Island and Conan Doyle’s The Adventures of Sherlock Holmes. Her Mystery Fiction and Shakespeare courses have won the Helen Williams Award for Excellence in Collegiate Independent Study.

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INSTRUCTOR BIOGRAPHIES

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Jesse Markman, M.L.A., ASLA, is a landscape architect with Sasaki Associates, Inc. He holds a master’s degree in landscape architecture and a bachelor of arts degree in botany and scientific illustration. His project experience includes landscape architecture and urban design, ecological sustainability, green roofs, and urban botany.

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Al Mattison, B.A., has worked in the advertising and marketing fields for more than 20 years. He was the marketing and advertising manager for 3M’s graphics systems group for 15 years. He has also worked on marketing and advertising projects for Lanier Business Products, Minolta Information, and Imaging Products.

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