

When UCI admitted its first class in 1965, 119 faculty members and 1,589 students began their work on a university still very much under construction. Since then, UCI has secured a place among the best public research universities in the United States through an unparalleled combination of rapid growth in enrollment and an equally impressive increase in the size, quality, and influence of its research and educational programs, performing arts, and professional schools.

UCI's commitment to the discovery and transmission of knowledge is reflected in its LRDP which identifies the physical infrastructure to support constantly evolving needs in research and teaching. A review of existing conditions at UCI—including academic programs, supporting operations, physical facilities, and the environmental setting—provided the starting point for the 2007 LRDP and the formulation of a framework to support campus development through 2025-26.

## EXISTING ENROLLMENT AND CAMPUS POPULATION

As shown in *Table 2-1*, UCI's on-campus population, or the number of individuals either enrolled or employed on-campus, consists of students, academic employees, staff employees, and persons employed within the Inclusion Areas. The on-campus student population excludes off-campus students, such as medical interns and residents assigned to UCI Medical Center and students in self-funded programs that generally do not require a daytime presence on campus (e.g., Fully-Employed MBA students and students enrolled in University Extension).<sup>1</sup> On-campus population figures are not adjusted to reflect the fact that not all students, faculty, and staff are on campus simultaneously on any given day due to variations in class and teaching schedules, vacations, sick leave, and sabbaticals. As a result, the actual number of enrolled and employed individuals on campus on any given weekday is less than that presented in *Table 2-1*.

Student enrollment at UCI is discussed in this LRDP in terms of student headcount enrollment, or



UCI makes available to its students the education, skills, and credentials that provide the basis for lifelong personal and professional growth.

the number of individuals registered at UCI. Enrolled students may be *undergraduate* (individuals seeking a bachelors or equivalent degree) or *graduate and professional* (individuals seeking a masters or doctoral degree or a professional degree such as management or medicine). Enrollment is further categorized into General Campus and Health Sciences programs. *Table 2-1* displays actual 2005-06 enrollment in comparison with the enrollment accommodated in the 1989 LRDP.

## ACADEMIC PROGRAM

UCI's instruction and research programs focus on fundamental areas of knowledge, and at the same time provide for interdisciplinary and professional study through the Claire Trevor School of the Arts, the School of Biological Sciences, the Paul Merage School of Business, the Department of Education, the Henry Samueli School of Engineering, the School of Humanities, the Donald Bren School of Information and

1. Medical residents and interns are accounted for in the UCI Medical Center Long Range Development Plan and accompanying UCI Medical Center LRDP EIR approved by The Regents in January 2003.

Table 2-1. Existing UCI Campus Population Compared With 1989 LRDP

	Actual 1987-88	2005-06 Accommodated in 1989 LRDP	Actual 2005-06
<b>I. Student Enrollment</b> (3-quarter average headcount)			
<b>General Campus</b>			
Undergraduate <sup>1</sup>	11,994	20,000	19,585
Graduate and Professional <sup>2</sup>	1,548	5,000	3,693
<i>Subtotal General Campus</i>	<i>13,542</i>	<i>25,000</i>	<i>23,278</i>
<b>Health Sciences</b>			
Graduate and Professional <sup>2</sup>	1,040	1,050	1,156
<i>Graduate and Professional as % of Total Enrollment</i>	<i>18%</i>	<i>23%</i>	<i>20%</i>
<b>Total Enrollment</b> (On- and Off-Campus)	<b>14,582</b>	<b>26,050</b>	<b>24,434</b>
<b>Students in Off-Campus Locations<sup>3</sup></b>			
General Campus <sup>4</sup>	–	–	657
Health Sciences	759	659	622
<i>Subtotal Off-Campus Students</i>	<i>759</i>	<i>659</i>	<i>1,279</i>
<b>Total On-Campus Enrollment</b>	<b>13,823</b>	<b>25,391</b>	<b>23,155</b>
<b>II. Academic and Staff Employees</b>			
<b>General Campus</b>			
Faculty <sup>5</sup>	550	1,200	926
Other Academics <sup>6</sup>	230	453	545
Non-Academic Staff <sup>7</sup>	1,919	2,931	3,355
<i>Subtotal General Campus</i>	<i>2,699</i>	<i>4,584</i>	<i>4,826</i>
<b>Health Sciences</b>			
Faculty <sup>5</sup>	125	350	277
Other Academics <sup>6</sup>	124	350	1,060
Non-Academic Staff <sup>7</sup>	374	2,700	1,300
<i>Subtotal Health Sciences</i>	<i>623</i>	<i>3,400</i>	<i>2,637</i>
<b>Total Academic and Staff Employees</b>	<b>3,322</b>	<b>7,984</b>	<b>7,463</b>
<b>III. Inclusion Area Employees<sup>8</sup></b>	<b>0</b>	<b>6,609</b>	<b>3,430</b>
<b>TOTAL ON-CAMPUS POPULATION</b>	<b>17,145</b>	<b>39,984</b>	<b>34,048</b>

<sup>1</sup> "Undergraduate" category includes undergraduate and post-baccalaureate students.

<sup>2</sup> "Graduate and Professional" category includes state-funded graduate students, self-funded graduate students, and medical residents and interns. Self-funded graduate students include students enrolled in the Executive MBA, Fully-Employed MBA, Health Care Executive MBA, and Criminology, Law & Society–M.A.S. programs.

<sup>3</sup> Students who are enrolled in programs that generally do not require a daytime presence on campus are not included in the on-campus population. This includes self-funded graduate students, medical residents and interns, and students enrolled in University Extension. These students generally are ineligible for on-campus housing and are seldom on campus.

<sup>4</sup> Students enrolled in self-funded graduate programs.

<sup>5</sup> "Faculty" refers to Academic Senate members, including emeriti.

<sup>6</sup> "Other Academics" refers to other full- and part-time teaching faculty, postgraduate and other researchers, and librarians.

<sup>7</sup> "Non-Academic Staff" includes all remaining full- and part-time career staff and non-student staff in non-career positions.

<sup>8</sup> Non-University personnel employed in the Inclusion Areas.

Computer Sciences, Interdisciplinary Studies, the School of Physical Sciences, the School of Social Ecology, the School of Social Sciences, the College of Health Sciences, and the School of Law.

### The Claire Trevor School of the Arts

The Claire Trevor School of the Arts is dedicated to the study, creation, and performance of the arts within the context of their history and theory. Both undergraduate and graduate degree programs are offered and include extensive studio, workshop, and performing experiences; theoretical and historical studies; and work in arts technology and criticism.

The Claire Trevor School consists of the Departments of Dance, Drama, Music, and Studio Art. The School's departments are located near each other, facilitating daily interaction among student and faculty in all Arts disciplines. Existing facilities include studios and classrooms, four theatres, a concert hall, the University Art Gallery, the Donald R. and Joan F. Beall Center for Art and Technology, the Visual Resources Collection,



*The UCI Department of Dance has achieved world-wide recognition for its programs of graduate study and undergraduate study, centering on performance, artistic research, scholarship, and pedagogy.*

academic areas also are eligible to participate in many of these activities and are encouraged to do so. Many of the School's productions take place in the Irvine Barclay Theatre, a fully equipped, 756-seat performance facility built on the campus in 1990 by a partnership consisting of UCI, the City of Irvine, and the private sector.

In 2005-06, there were 1,060 students in the School: 930 undergraduate and 130 graduate.

### School of Biological Sciences

The School of Biological Sciences is one of the campus's larger academic units, with 3,740 students (3,470 undergraduate and 270 graduate). Undergraduates have the option of specializing in areas of biology that best fit their interests, with degree programs offered in Biochemistry and Molecular Biology, Developmental and Cell Biology, Ecology and Evolutionary Biology, Genetics, Microbiology and Immunology, Neurobiology, Pharmaceutical Sciences, or Plant Biology. Those students who wish to receive a broader education in the area can opt to complete a major in Biological Sciences. Opportunities are available at the graduate level to specialize in Anatomy and Neurobiology, Biological Chemistry, Developmental and Cell Biology, Ecology and Evolutionary Biology, Experimental Pathology, Microbiology and Molecular Genetics, Molecular

#### THE CLAIRE TREVOR SCHOOL OF THE ARTS

##### Areas of Undergraduate Study

*Majors: Arts and Humanities, Dance, Drama, Music, Studio Art*

*Minors: Digital Arts, Drama, Studio Art*

##### Areas of Graduate Study

*Acting, Arts Computation Engineering, Choral Conducting, Collaborative Piano, Composition and Technology, Dance, Design and Stage Management, Directing, Drama, Drama and Theatre, Guitar/Lute Performance, Instrumental Performance, Jazz Studies, Piano Performance, Studio Art, Vocal Arts*

the Gassmann Electronic Studio, the Motion Capture Studio, the Arts Media Center, the Arts Computing Laboratory, the Digital Arts Teaching and Research Laboratories, and a television studio. Professionally managed and staffed theatrical production shops and publicity and box offices support the School's extensive production and performance schedule.

Arts students regularly participate in choirs, instrumental ensembles, drama and dance productions, and art exhibitions. Qualified students from other

Biology and Biochemistry, Neurobiology and Behavior, Physiology and Biophysics, and Protein Engineering Science.

The quality of the faculty in the School of Biological Sciences has remained high while increasing steadily in number over the past few years, giving students a remarkable range of expertise in biology and with it, a large number of different advanced courses and research opportunities. Faculty research areas include neural plasticity and behavior (which in part encompasses the development of the nervous system, memory, response to injury, and degenerative brain diseases such as Alzheimer's); the nature of cell-cell interactions; pattern formation; the elucidation of ecological conditions and evolutionary histories that have been the driving forces in organism design and functional diversity; the organization and expression of genes; biomolecular structure; molecular pathogenesis; human mitochondrial genetics; and cell biology. Research efforts have brought several high-impact research units to the



*The research of developmental biologist Susan Bryant, shown here with an axolotl salamander, focuses on the molecular basis of limb development and regeneration.*

### SCHOOL OF BIOLOGICAL SCIENCES

#### Areas of Undergraduate Study

*Majors: Biochemistry and Molecular Biology, Biological Sciences, Developmental and Cell Biology, Ecology and Evolutionary Biology, Genetics, Microbiology and Immunology, Neurobiology, Pharmaceutical Sciences, Plant Biology, Applied Ecology*

*Minor: Biological Sciences*

#### Areas of Graduate Study

*Anatomy and Neurobiology, Biological Chemistry, Biological Sciences, Biotechnology, Developmental and Cell Biology, Ecology and Evolutionary Biology, Experimental Pathology, Mathematical and Computational Biology, Microbiology and Molecular Genetics, Molecular Biology and Biochemistry, Neurobiology and Behavior, Neuroscience, Physiology and Biophysics, Protein Engineering Science*

campus, such as the Center for the Neurobiology of Learning and Memory, the Center for Virus Research, the Beckman Laser Institute, the Cancer Research Institute, the Developmental Biology Center, the Center for Immunology, the Institute for Brain Aging and Dementia, the Macromolecular Structure Research Unit, the Center for Molecular and Mitochondrial

Medicine and Genetics, the Institute for Genomics and Bioinformatics, and the Reeve-Irvine Research Center, all of which are accessible to undergraduates. The School of Biological Sciences also has close research and teaching collaborations with faculty in the Schools of Medicine, Physical Sciences, Social Ecology, and Social Sciences; the Donald Bren School of Information and Computer Sciences; and the Henry Samueli School of Engineering.

### The Paul Merage School of Business

The Paul Merage School of Business offers a learning experience that prepares graduates for a lifetime of professional and personal growth. The rigorous curriculum, combined with extensive professional and interpersonal training and opportunities made available through the School's Career Services Office and Center for Leadership Development, allows students to gain theoretical perspectives that are in turn tested and affirmed with practical application. The result is an environment that fosters the development of professional and personal skills vital to contemporary executives or managers. Students are encouraged to develop their ability to lead change by mastering communication skills, to work productively and actively within a team-oriented environment, to gain a solid grasp of quantitative skills, and to appreciate and effectively employ those solutions that involve the integration and

### THE PAUL MERAGE SCHOOL OF BUSINESS

#### Areas of Undergraduate Study

*Minors: Accounting, Management*

#### Areas of Graduate Study

*Business Administration, Management*

implementation of information and technology to offer creatively viable business options.

The Paul Merage School of Business has developed a strategic focus on Information Technology for Management, a theme that is incorporated in many areas of the curriculum. Students learn about change as it takes place within the context of a knowledge-based, technology-driven society where information and its effective use are vital to establishing a competitive edge. Students, whether they are interested in finance, marketing, general management, strategic planning, accounting, operations, health care, human resources, international business, or other areas, are thoroughly imbued and aligned with the nature, importance, and handling of information in all of these and other fields. Further, they are taught to understand the technology and the technological processes that enable the gathering, analysis, dissemination, and use of information to change the way business is done. The strategic focus of the School is to provide skills that will enable its graduates to be effective managers who are proficient in business procedures and have the leadership qualities and know-how to affect change by transforming conventional business practices or perhaps even inventing new business processes and management techniques.

Faculty members research and teach traditional management fields such as organizational behavior, information technology, finance, marketing, accounting, international business, managerial economics, new ventures, decision sciences, operations management, strategy, public policy, and health care management. They also focus on how the implementation and integration of technology, combined with information management, are changing the way business is conducted. In 2005-06, the School had 220 students in the M.B.A. and Ph.D. programs; 610 in the Executive M.B.A., Health Care Executive M.B.A., and Fully

Employed M.B.A. programs; and 430 undergraduate minors in Management and Accounting.

### Department of Education

The Department of Education, with 130 graduate and 130 postbaccalaureate students, offers graduate degree programs and credential programs for current and prospective teachers and administrators in California's public elementary and secondary schools, as well as an undergraduate minor in Educational Studies. At the heart of the Department's mission is a commitment to understand and deliver the educational transformations needed in today's world, a theme implemented in five main areas of research: language, literacy, and culture; learning, instruction, and assessment; teacher education and development; information and communication technologies in education; and educational policy and leadership and their social contexts. Graduate and postbaccalaureate teacher preparation programs develop this theme for new scholars and practitioners in the field of education.

Faculty associated with the Department of Education include researchers and scholars of national and international reputation. Many faculty have taught or served as administrators in public schools, and all are committed to the continual improvement of education through conducting research and developing more



*Designed as a professional development institute for primary teachers, the UCI Department of Education's ArtsCore project strengthens shared literacy instruction by developing arts experiences from the disciplines of dance, drama, music, and visual arts.*

## DEPARTMENT OF EDUCATION

### Areas of Undergraduate Study

*Minor: Educational Studies*

### Areas of Graduate Study

*Education; Educational Administration and Leadership; Elementary and Secondary Education; Multiple Subject Instruction (Elementary); Single Subject Instruction (Secondary); Bilingual Crosscultural, Language, and Academic Development (BCLAD) Emphasis in Spanish; Preliminary Administrative Services; Professional Clear Administrative Services*

effective approaches to teaching. Research projects address a variety of areas, including information and communications technologies; cognition in science; race and urban education; educational policy and school reform; program evaluation; reading, language, and literacy; arts education; and intelligence theory.

## The Henry Samueli School of Engineering

The Henry Samueli School of Engineering, with 2,620 students (1,990 undergraduate, 630 graduate), focuses on the analysis and design of physical systems applying modern scientific principles to the development of technology for society. The major research disciplines are aerospace, biochemical, biomedical, chemical, civil, computer, electrical, environmental, materials science, and mechanical engineering.

- *Aerospace Engineering* considers the flight characteristics, performance, and design of aircraft and spacecraft. The intent of the program is to produce highly proficient engineers who can tackle the aerospace engineering challenges of the future.
- *Biochemical Engineering* is concerned with the processing of biological materials and processes that use biological agents such as living cells, enzymes, or antibodies. With integrated knowledge of the principles of biology and chemical engineering, biochemical engineering plays a major engineering role in the rapidly developing area of biotechnology.
- *Biomedical Engineering* applies fundamental engineering principles to complex problems that are primarily medical in nature, and focuses on improving the quality of health care by advancing

technology and reducing the cost of treatment. Examples include advanced biomedical imaging systems, the design of microscale diagnostic systems, pharmaceutical delivery systems, and tissue engineering.

- *Chemical Engineering* uses the knowledge of chemistry, mathematics, physics, biology, and humanities to solve societal problems in areas such as energy, health, the environment, food, textiles, shelter, semiconductors, and homeland security. It serves a variety of processing industries whose vast array of products include chemicals, petroleum products, plastics, pharmaceuticals, foods, textiles, fuels, consumer products, and electronic and cryogenic materials.
- *Civil Engineering* addresses the challenges of large-scale engineering projects of importance to society as a whole, such as water distribution, transportation, and building design. Specializations are provided in General Civil Engineering, Environmental Hydrology and Water Resources, Structural Engineering, and Transportation Systems Engineering.
- *Computer Engineering* addresses the design and analysis of digital computers, including both



By working to reduce the size of electronic circuit elements, the Nanotechnology Group within The Henry Samueli School of Engineering develops technologies to significantly increase signal processing and communications speed.



tools of analysis, ways of seeing, knowing, explaining, describing, and understanding, that will allow them to comprehend and influence the world around them.

Because language is the humanist's essential tool and the traditional medium of historical record, philosophical speculation, and literary creation and criticism, the School of Humanities places special emphasis on language and training in composition. The campus-wide Writing Program is housed in the School of Humanities, as are distinguished programs in creative writing and the Program in Academic English/English as a Second Language. The School of Humanities also offers programs in over a dozen foreign languages, both classical and modern, and requires that its majors take two years of foreign language study.

### SCHOOL OF HUMANITIES

#### Areas of Undergraduate Study

*Majors: African American Studies, Art History, Asian American Studies, Chinese Language and Literature, Classical Civilization, Classics, Comparative Literature, East Asian Cultures, English, European Studies, Film and Media Studies, French, German Studies, Global Cultures, History, Humanities and Arts, Humanities (Interdisciplinary), Japanese Language and Literature, Literary Journalism, Philosophy, Religious Studies, Spanish, Women's Studies*

*Minors: African American Studies, Archaeology, Art History, Asian American Studies, Asian Studies, Chinese Language and Literature, Classical Civilization, Comparative Literature, English, European Studies, Film and Media Studies, French, German Studies, Global Cultures, Greek, History, Humanities and Law, Italian Studies, Japanese Language and Literature, Latin, Latin American Studies, Philosophy, Portuguese, Queer Studies, Religious Studies, Russian Studies, Spanish, Women's Studies*

#### Areas of Graduate Study

*Asian American Studies, Art History, Chicano/Latino Literature, Chinese Language and Literature, Classics, Comparative Literature, Creative Nonfiction, Creative Writing: Poetry or Fiction, Critical Theory, East Asian Cultural Studies, East Asian Languages and Literatures, English and American Literature, Feminist Studies, Film and Media Studies, French, German, Greek, History, History of Gender and Sexuality, Humanities, Japanese Language and Literature, Latin, Philosophy, Spanish, Spanish Literature, Spanish-American Literature, Translation Studies, Visual Studies*

Interdisciplinary studies are also an essential feature of the Humanities Honors Program and programs in Film and Media Studies, Comparative Literature, Global Cultures, Religious Studies, and Humanities and Arts. The Department of Asian American Studies and the Interdisciplinary Programs in African American Studies, Latin American Studies, and Women's Studies are also located in the School of Humanities.

The School of Humanities faculty have been repeatedly honored for their teaching and scholarly excellence. Included in the faculty's more than 100 research specialties are literary criticism, film studies, philosophical analysis, historical inquiry, art history, and East Asian languages and literatures.

In 2005-06, the School of Humanities had 2,540 students, including 2,120 undergraduate and 420 graduate.

### The Donald Bren School of Information and Computer Sciences

The Donald Bren School of Information and Computer Sciences (ICS) has 1,230 students (960 undergraduate and 270 graduate). The Bren School of ICS began as a department in 1968 and has contributed to some of computing's most significant advancements including: revolutionizing computer-aided drafting techniques; creating the current Hypertext Transfer Protocol (HTTP/1.1); developing the Internet standards for HTTP and Uniform Resource Identifiers (URI); founding the Apache HTTP Server Project that produces the software for over 60 percent of public Internet Web sites; and creating the Domain Name System (DNS) that translates Web and e-mail addresses into the numeric system used to route information along the Internet.

The Bren School of ICS is comprised of three departments that, when combined with the Bren School's inherent interdisciplinary nature, give way to the creation of new areas of study and research. ICS is one of less than 40 computer-specific schools in the country and one of only a handful to have established a department dedicated to the study of Informatics alongside a more traditional Department of Computer Science and a forward-thinking partnership with its Department of Statistics. Informatics, Computer Science, and Statistics afford ICS a unique perspective of the information technology disciplines and allows the



*Bren Hall, new home of the Donald Bren School of Information and Computer Sciences, completed 2007.*

flexibility to build educational programs that explore the many applications of the computing discipline: computer architecture and embedded systems; security, privacy, and cryptography; programming languages and compilers; artificial intelligence and machine learning; visual computing; biomedical informatics; scientific computing; theory of computing; statistics; information access and management; software and information systems design, and engineering; interactive and collaborative technology; ubiquitous computing; arts computation engineering; and computer science education.

The Bren School of ICS continues to explore innovative topics ranging from building complete computer systems on chips smaller than a human fingernail to developing user interface systems that allow engineers on opposite sides of the world to collaborate effectively.

## THE DONALD BREN SCHOOL OF INFORMATION AND COMPUTER SCIENCES

### Areas of Undergraduate Study

*Majors: Computer Science, Computer Science and Engineering, Informatics, Information and Computer Science*

*Minors: Informatics, Information and Computer Science*

### Areas of Graduate Study

*Arts Computation Engineering, Computer Science, Embedded Systems, Informatics, Informatics in Biology and Medicine, Information and Computer Science, Knowledge Discovery in Data, Networked Systems, Statistics*

From improving how first responders communicate during a crisis situation, to applying computer science to analyze biological data and thereby expediting biological research, the Bren School of ICS continues to focus on how to use computing and information technology solve diverse sets of problems.

## Interdisciplinary Studies

Interdisciplinary Studies programs provide students with opportunities to pursue subject areas that span the boundaries of traditional academic scholarship and derive from the interaction of different disciplines such as Chicano/Latino Studies, Computer Science and Engineering, History and Philosophy of Science, and Transportation Science.

### INTERDISCIPLINARY STUDIES

#### Areas of Undergraduate Study

*Majors: Chicano/Latino Studies, Computer Science and Engineering*

*Minors: Chicano/Latino Studies, Global Sustainability, History and Philosophy of Science, Native American Studies*

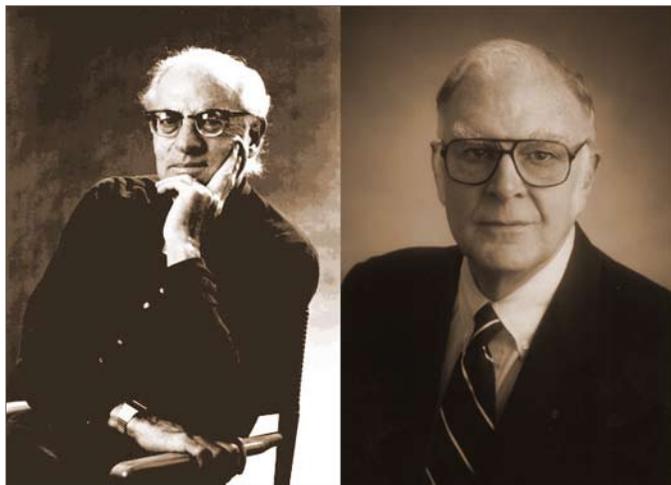
#### Areas of Graduate Study

*Networked Systems, Transportation Science*

## School of Physical Sciences

The School of Physical Sciences has a student body of 1,390 (960 undergraduate and 430 graduate). This School offers both professional training and general education in the Departments of Chemistry, Earth System Science, Mathematics, and Physics and Astronomy. The faculty are active in research and graduate education, and also are vitally concerned with undergraduate teaching. Curricula of the School of Physical Sciences are designed to meet the needs of a wide variety of students ranging from those with little technical background who seek insight into the activities and accomplishments of physical scientists to those seeking a comprehensive understanding that will prepare them for creative research in physical science.

Over the course of the past century and a half, physics, chemistry, and mathematics have evolved into interdependent but separate intellectual disciplines.



*The School of Physical Sciences gained international prominence in 1995 when professors Frederick Reines (physics) and F. Sherwood Rowland (chemistry) each received the Nobel Prize, making UCI the first public university with faculty receiving Nobel prizes in two different fields in the same year.*

This development is reflected in the departmental structure of the School of Physical Sciences. In the same period, these fundamental disciplines have moved into domains of abstraction unimagined by early scientists. This trend to abstraction with its concomitant increase in understanding of the physical universe provides the primary challenge to the student of the physical sciences. Mathematics, physics, and chemistry, while providing the foundation of the technology that dominates contemporary civilization, underlie to an ever-increasing extent the new developments in the biological and social sciences. Earth system science is grounded in the traditional physical sciences while breaking new paths in the quantitative study of changes in the global environment.

#### SCHOOL OF PHYSICAL SCIENCES

##### Areas of Undergraduate Study

*Majors: Chemistry, Earth and Environmental Sciences, Mathematics, Physics*

*Minors: Earth and Atmospheric Sciences, Mathematics*

##### Areas of Graduate Study

*Chemical and Materials Physics, Chemistry, Earth System Science, Mathematics, Physics, Protein Engineering Science*

Researchers in the School of Physical Sciences are conducting investigations in atmospheric chemistry (including the discovery of the adverse impact of human-made chlorofluorocarbon compounds on the earth's ozone layer), biogeochemistry and climate, synthetic chemistry, laser spectroscopy, condensed matter physics, elementary particle physics, plasma physics, and pure and applied mathematics and mathematical physics.

### School of Social Ecology

The School of Social Ecology, established in 1970, is a unique interdisciplinary academic unit spanning the environmental, social, behavioral, and health sciences, as well as the relationship between law and society. The School is comprised of the Departments of Criminology, Law and Society; Environmental Health, Science, and Policy; Psychology and Social Behavior; and Planning, Policy, and Design. The School's central objectives are the application of scientific methods to the analysis and resolution of societal problems, and the development of theory and knowledge pertinent to social, behavioral, environmental, and legal phenomena. Among issues of long-standing interest are crime and justice in society, social influences on human development over the life cycle, urban and community planning, and the effects of the physical environment on health and behavior. Social ecology is the science of the relationships between human populations and their environments.

The faculty in the School of Social Ecology is multidisciplinary. Included are psychologists with a variety of specialties e.g., developmental, clinical, social, and environmental; sociologists; program evaluators; criminologists; lawyers; urban and regional planners; environmental health scientists; and environmental design specialists. Faculty members conduct research and teach courses that integrate concepts and perspectives of the several disciplines. This focus arises from commitment to the view that societal problems are so complex that their analysis requires interdisciplinary efforts (i.e., the joining of talents by people with different intellectual backgrounds).

The School of Social Ecology features many facilities for experimental research, such as wet laboratories for research and teaching in the environmental health sciences and behavioral assessment laboratories for research in human development, social relations, and

## SCHOOL OF SOCIAL ECOLOGY

### Areas of Undergraduate Study

*Majors: Criminology, Law and Society; Environmental Analysis and Design; Psychology and Social Behavior; Public Health Policy; Public Health Sciences; Social Ecology; Applied Ecology*  
*Minors: Criminology, Law and Society; Environmental Analysis and Design; Environmental Design; Epidemiology and Public Health; Psychology and Social Behavior; Urban and Regional Planning*

### Areas of Graduate Study

*Criminology, Law and Society; Demographic and Social Analysis; Environmental Analysis and Design; Environmental Health Science and Policy; Planning, Policy, and Design; Psychology and Social Behavior; Social Ecology; Urban and Regional Planning; Urban and Regional Planning/Civil Engineering*

legal studies. Wet laboratories are used for studying air and water pollution. Behavioral assessment laboratories are used for studying social phenomena such as parent-child interaction, cooperation among children, memory functions, hyperactivity, social support processes, and mock jury discussions. The School also offers students up-to-date computing facilities.

In 2005-06, there were 2,880 students in the School, including 2,620 undergraduate and 260 graduate.

## School of Social Sciences

The School of Social Sciences, with 4,890 students (4,580 undergraduate and 310 graduate), is the largest academic unit at UCI. Undergraduate and graduate education in the School represents a commitment to modern social science. The classic subject areas of anthropology, economics, geography, linguistics, political science, psychology, and sociology are included in the School's educational programs, but these programs go well beyond the traditional disciplines and can be characterized by the following emphases.

First, the faculty recognizes the value of systematic empirical observation and quantitative analysis in the study of human behavior. Developments in computer science and in mathematics oriented toward the problems of the social sciences, and the refinement of techniques for the observational, experimental, and statistical study of human behavior, have contributed

major new elements to social science. Students in the School of Social Sciences become familiar with the mathematical, computational, and statistical tools underlying modern social science.

Second, many of the most interesting questions in the study of human behavior cannot be fixed within the traditional disciplinary boundaries. Some of the evolving areas which cross academic boundaries are political sociology, public policy, cognitive anthropology, and psycholinguistics. Therefore, many courses and course modules are built around these social science phenomena.

Third, the School of Social Sciences emphasizes the design of hypotheses and of systems of interrelated ideas as an essential part of scientific pursuit. Consequently, the educational programs place substantial emphasis on understanding social science phenomena through the development of theories that can be used to guide empirical studies.

The faculty, many of whom are nationally recognized, have expertise in a wide range of specific social science topics, for example, the mathematical modeling of perception and cognitive processes; the economic analysis of transportation; the examination of the impact of society's political system on its economy; the study of



*UCI Distinguished Professor Elizabeth Loftus is a pioneer in false memory research, and has proven that memory is highly susceptible to distortion and suggestion.*

### SCHOOL OF SOCIAL SCIENCES

#### Areas of Undergraduate Study

*Majors: Anthropology, Business Economics, Economics,, International Studies, Political Science, Psychology, Quantitative Economics, Social Science, Sociology*

*Minors: Anthropology, Conflict Resolution, Linguistics, Medical Anthropology, Political Science, Psychology, Sociology*

#### Areas of Graduate Study

*Anthropology, Cognitive Sciences; Demographic and Social Analysis; Economics; Games, Decisions, and Dynamical Systems; Logic and Philosophy of Science; Mathematical Behavioral Sciences; Neuroscience; Political Psychology; Political Science; Psychology; Public Choice; Social Networks; Social Science; Sociology; Transportation Economics; Transportation Science*

social structure and values in different cultures through a rigorous scientific methodology; and the exploration of authority structures and inequality in society.

### College of Health Sciences

The College of Health Sciences includes the recently recognized Programs in Nursing Science, Pharmaceutical Sciences, and Public Health, and the well-established School of Medicine.

Established in 2005, the Program in Nursing Science in 2006-07 enrolled an initial class of 39 undergraduates that began work toward the first baccalaureate degree program in nursing ever offered in Orange County. Graduate degree programs currently are in development. The Program in Nursing Science at UCI is the third in the University of California system, joining nursing schools at UC San Francisco and UCLA. The curricula in Nursing Science provides academic and professional education consisting of coursework in the biological, social, behavioral, and biomedical sciences. The program prepares graduates for basic clinical and advanced practice roles, as well as for educational, administrative, and research positions both in the health care industry and at academic institutions. Nursing Science research is formulated within an expanded view of health that includes health promotion, restoration, and rehabilitation. This program will encourage outstanding research within Nursing Science subspecialties as well as related areas of interest of faculty.

The Program in Pharmaceutical Sciences, established in 2003, has developed a curriculum focusing on the strengths required to prepare students for professional positions in the pharmaceutical production, control, and development sectors of the pharmaceutical and biotechnology industry or for graduate studies in pharmaceuticals, medicinal chemistry, pharmacology, analytical chemistry, medicine, and pharmacy. With coursework drawn from the biological sciences, chemistry, and pharmacology, the undergraduate program in Pharmaceutical Sciences helps students develop diverse skills, spanning the spectrum from drug discovery through formulation, clinical trials, marketing, regulatory affairs, and pharmacotherapy. Undergraduate coursework will initially be offered in fall 2007. Master's and doctoral degree programs in Pharmaceutical Sciences are currently under development.

The Program in Public Health, established in 2003, develops core strengths in essential areas of the field, including health services and clinical policy research, biostatistics and quantitative/qualitative methods, clinical sciences, epidemiology, behavior/interdisciplinary sciences, and environmental sciences. UCI offers two undergraduate degrees that train students in the recognition of emerging threats to public health, including those associated with global environmental change, bio-terrorism, and human population growth. A bachelor of arts is being offered in public health policy, which emphasizes study in social and behavioral health sciences and in health science administration and management. The bachelor of sciences program in public health sciences focuses on natural sciences research in areas such as infectious diseases, environmental and global health sciences, and epidemiology and biostatistics. The degree programs are a first step toward a School of Public Health. A proposal for a graduate program is currently under development. In 2006-07, there were 94 undergraduate students in the Program in Public Health.

The UCI School of Medicine became part of the University of California in 1965. Prior to this time, it was known as the California College of Medicine which traces its roots to a private institution founded in 1896. The School of Medicine currently has 1,150 students (370 medical, 620 resident-physicians and fellows, and 160 graduate) and offers one of the

## SCHOOL OF MEDICINE

### Areas of Graduate Study

*Anatomy and Neurobiology, Biological Chemistry, Environmental Toxicology, Experimental Pathology, Genetic Counseling, Medical Residency Programs, Medical Scientist Program (M.D./Ph.D.), Medicine, Medicine/Business Administration, Microbiology and Molecular Genetics, Neuroscience, Pharmacology and Toxicology, Physiology and Biophysics, Program in Medical Education for the Latino Community (PRIME-LC)*

country's largest residency training opportunities in primary care and internal medicine and houses some of the most advanced equipment in medical imaging and laser medicine available in the world. The faculty conduct innovative research in the following areas of emphasis: bioethics, biomolecular structure, oncology, cardiovascular and pulmonary diseases, geriatric medicine, immunology, molecular and human genetics, the neurosciences, and perinatology.

The School of Medicine is dedicated to advancing the knowledge and practice of medicine for the benefit of society. This mission is achieved through programs of excellence in:

- **Education:** The School of Medicine is committed to providing educational programs of the highest quality to medical students, M.D./Ph.D. and M.D./M.B.A. students, residents, fellows, allied health, graduate academic students, practicing physicians and other health care professionals. Educational programs are offered along the continuum of medical education with undergraduate, graduate, and continuing medical education programs. These programs emphasize the most current knowledge in the health sciences and reflect the changing practice of medicine. Further, the School of Medicine's educational programs are designed to stimulate lifelong self-learning and critical inquiry and to exemplify those human values necessary to fulfill the professional commitments of a career in the health sciences.
- **Research:** Excellence in research is an essential feature of the School of Medicine. Therefore, the School is committed to develop and maintain

research programs in the health sciences that seek to advance basic scientific knowledge and the prevention, diagnosis, and treatment of human illness.

- **Clinical Care:** Recognizing its responsibility to meet the educational needs of students and the diverse needs of the patient community, the School of Medicine is committed to programs of clinical excellence across the spectrum of patient care disciplines.
- **Service to the Public:** As a public institution, the School of Medicine is committed to serve the community as a vital resource of health-related expertise and knowledge. The School of Medicine further serves the public through the training of health professionals whose backgrounds reflect California's ethnic and cultural diversity and whose professional careers address California's health care needs.



*The PRIME-LC program within the School of Medicine provides specialized training for future physicians strongly committed to careers in public service, improving health care delivery, research, and policy in underserved Latino communities.*

### School of Law

In November 2006, The Regents approved a proposal to establish a School of Law at UCI, fulfilling a longstanding vision of the campus. The School of Law was the culmination of a rigorous process involving the University and the community to evaluate the need for a new professional school at UCI, and will help the campus to realize more fully the ideals of broad access and increased social mobility that are central to its mission as a public university. The school is expected to open its doors to its first class of law students in fall 2009.

### SUPPLEMENTARY EDUCATIONAL PROGRAMS

In addition to its primary academic programs, UCI also offers programs through Summer Session and UC Irvine Extension. Students who enroll in Summer Session and take an academic program equivalent to a regular quarter may accelerate their progress toward a degree. Courses offered include a wide variety from the regular session, supplemented by experimental offerings available only during the summer, including courses offered online. Admission is open to all university students, high school graduates, community members, and qualified high school students who have completed their junior year. Admission to Summer Session does not constitute admission to a regular session of the University; therefore, official transcripts of educational records are not required. Summer Session also coordinates summer travel-study programs providing students with a sampling of collegiate life abroad. In 2006-07, the academic workload (expressed as student credit hours) during Summer Session represented nearly 30 percent of the average workload for the fall, winter, and spring quarters. UCI's goal is for Summer Session to accommodate 40 percent of the three-term average workload by 2010.

As the university's continuing education arm, UC Irvine Extension provides a transforming learning experience year-round for adults seeking career advancement and personal growth. Enrollment in UC Irvine Extension exceeds 35,000 each year and more than 2,000 credit and noncredit courses, certificate programs, specialized studies, seminars, workshops, conferences, and lecture programs are offered annually. Individual courses promote career advancement and



*Now celebrating its 30th year, Summer Session's partnership with Pembroke College provides UCI students with the opportunity to travel to the University of Cambridge. Students live and study in historic Pembroke College and complement their studies with relevant excursions to Edinburgh and the Highlands of Scotland.*

lifelong learning, while certificate programs offer the opportunity for distinctive achievement in a wide range of fields. Certificate programs are a sequence of courses designed to develop in-depth expertise to improve career opportunities. UC Irvine Extension offers more than 40 certificate programs in fields as diverse as information technologies, engineering, management and leadership, appraisal studies of fine and decorative arts, education, medical product development, finance and investor relations, and paralegal programs. In addition, UC Irvine Extension offers cultural enrichment programs in such areas as art and cultural appreciation, literature, creative writing, personal wellness, foreign language, film, screenwriting, and photography. Most courses are held in the evenings and on weekends to accommodate the working professional. They are conducted at UCI, at the UCI Learning Center in the City of Orange, and at other sites throughout Orange County.

### RESEARCH ORGANIZATIONS

A primary mission for UCI is faculty research and scholarship, which plays a valuable role in the education of both graduate and undergraduate students. Research activity at UCI is coordinated by the Office of Research which has responsibility for research policy, research development, animal research administration, UCI-

industry relations, and research administration, which includes submission of grant proposals and negotiation and administration of awards. The Office of Research also encourages new research initiatives and administers UCI's organized research programs, interdisciplinary groups of faculty pursuing unique problems that cross departmental and school boundaries.

Research centers and institutes at UCI provide a mechanism and organizational structure within which collective research activities can take place that are fundamentally different from those that occur normally within the schools and departments. They are intended to foster the development of short and long-term research programs that span disciplines and academic units. Following is an inventory of the various research centers and institutes at UCI.

### Organized Research Units

An Organized Research Unit is an academic unit established to provide a supportive infrastructure for interdisciplinary research complementary to the academic goals of departments of instruction and research. The work of some Organized Research Units is directed toward the solution of complex contemporary problems, while others conduct basic research essential to the understanding of natural or social phenomena or of humanistic ideas and expressions. Organized Research Units are supported by both UCI and extramural funding. The following Organized Research Units have been established on the Irvine campus:

- *Cancer Research Institute*
- *Center for Embedded Computer Systems*
- *Center for the Neurobiology of Learning and Memory*
- *Center for Research on Information Technology and Organizations*
- *Center for the Study of Democracy*
- *Center for Virus Research*
- *Critical Theory Institute*
- *Developmental Biology Center*
- *Genetic Epidemiology Research Institute*
- *Institute for Brain Aging and Dementia*
- *Institute for Genomics and Bioinformatics*
- *Institute of Geophysics and Planetary Physics*



*The UCI Center for the Study of Democracy sponsors research and education aimed at improving the democratic process in the United States and expanding democracy around the world. (Pictured at center: Jack W. Peltason, UC President Emeritus, UCI Chancellor Emeritus, and Chair of the Leadership Council for the Center for the Study of Democracy.)*

- *Institute for Mathematical Behavioral Sciences*
- *Institute for Software Research*
- *Institute for Surface and Interface Science*
- *Institute of Transportation Studies*

### Campus Centers

UCI uses the designation "Campus Center" for organized research programs that are not constituted as Organized Research Units. A Campus Center provides a group of researchers with use of the "Center" title and a structure for its collaborative activities. The rationale for establishing a Campus Center may include attracting greater recognition and extramural support for a research program at UCI and/or providing an infrastructure that promotes synergistic interactions among researchers within a school or across schools. A Campus Center will normally be established for a period of three years. Current Campus Centers include:

- *Center for Asian Studies*
- *Center for Diabetes Research and Treatment*
- *Center for Ethnography*
- *Center for Global Peace and Conflict Studies*
- *Center for Hearing Research*
- *Center for Immunology*
- *Center for Learning through the Arts*



Researchers at the California Institute for Telecommunications and Information Technology developed the HIPerWall (Highly Interactive Parallelized Display Wall), the world's highest-resolution gridbased display for visualizing and manipulating massive data sets. Measuring over 200 square feet, the 50-panel wall brings to life terabyte-sized data sets, including biomedical images, climate datasets, and geological data.

- *Center for Organizational Research*
- *Center for Pervasive Communications and Computing*
- *Center for Research on Immigration, Population and Public Policy*
- *Center for Tissue Engineering and Regenerative Medicine*
- *Center for Unconventional Security Affairs*
- *Center in Law, Society and Culture*
- *Epilepsy Research Center*
- *International Center for Writing and Translation*
- *Newkirk Center for Science and Society*
- *Tu & Yuen Center for Functional Onco-Imaging*
- *UCI Interdisciplinary Center for the Scientific Study of Ethics and Morality*
- *Urban Water Research Center*

## Other Research Centers and Institutes

Additional research organizations at UCI include:

- *California Institute for Telecommunications and Information Technology (Cal-IT2)*
- *California Institute of Hazards Research*
- *Center for Health Policy and Research*
- *Chao Family Comprehensive Cancer Center*

- *National Fuel Cell Research Center*
- *Network for Experimental Research on Evolution*
- *Reeve-Irvine Research Center*
- *Sue and Bill Gross Stem Cell Research Center*
- *Thesaurus Linguae Graecae*
- *UC-Cuba Academic Initiative*
- *University of California Humanities Research Institute*

## CAMPUS SUPPORT PROGRAMS AND SERVICES

To support its academic and research programs, UCI administers essential ancillary programs including administration, affiliated units, libraries, student services, housing, childcare, and athletics and recreation.

- *Administration:* General administration provides campuswide services and operations. Administrative functions include the Office of Academic Affairs, UCI Student Affairs, the Division of Undergraduate Education, and the Office of Graduate Studies. It also includes business and administrative services, computing and communication services, campus police, environmental services, external relations, human resources, resource management and planning, and transportation and parking services.
- *Affiliated Units:* Affiliated units are those that operate under governance that is separate from the campus administration. Affiliated units serving the campus and community include student government, the University Club, the Irvine Barclay Theatre, University Montessori, and tenants in University Research Park and other Inclusion Area development.
- *Libraries:* Established in 1963 as one of the founding academic units on campus, the UCI Libraries bring people together to facilitate the creation and sharing of new knowledge in all disciplines across campus. The Libraries support the information needs of students, faculty, staff, and community members through the Libraries' Web site and at four library facilities: the Langson Library, the Science Library, and the Gateway Study Center on the UCI campus, and the Grunigen Medical Library in Orange. The UCI Libraries have more than 2.4 million volumes and subscriptions to more than 26,000 journals,



*UCI's Science Library is one of the largest consolidated science, technology, and medical libraries in the nation.*

as well as a growing array of manuscripts, visual materials, and microforms, all in both electronic and print formats. In addition, the UCI Libraries maintain ties to all UC libraries and other lending sources.

- **Student Services:** UCI offers a diversity of student services and programs that complement and enrich the educational and out-of-class life of UCI students. This is achieved through the provision of a comprehensive range of cultural, social, and intellectual opportunities that promote student learning and development, including student-produced media, the UCI Bookstore, the Career Center, the Counseling Center, the Health Education Center, the UCI Student Center, and numerous programs administered by the Office of the Dean of Students.
- **Housing:** The high cost of housing in Orange County continues to affect plans to provide affordable and accessible housing for students, faculty, and staff. Housing cost and availability are important factors in attracting the best students and employees to UCI. In addition, provision of housing proximate to the campus reduces UCI-related vehicle trips which helps to limit on-campus and regional traffic impacts. UCI has developed an aggressive on-campus student housing program consisting of residence halls and apartment communities for undergraduates, graduate students, and students

with families. UCI currently accommodates approximately 10,822 student residents, or about 47 percent of its on-campus enrollment, exceeding the 1989 LRDP goal of housing approximately 43 percent of students on campus.

With the assistance of the Irvine Campus Housing Authority, UCI also administers a faculty and staff housing program that has become a model nationwide. Currently, 140 apartment units and 778 for-sale housing units have been developed in University Hills, the faculty and staff residential community on the UCI campus. When an additional 100 apartment units and 90 for-sale housing units presently under construction are completed, 1,108 faculty and staff dwelling units will be available on campus. The 1989 LRDP identified a program of 1,100 faculty and staff homes by 2005-06.

- **Childcare:** Excellent childcare is important to the recruitment and retention of students, faculty, and staff. Child Care Services at UCI includes seven Centers offering programs for children from three months to 12 years of age. The programs are open to children of UCI students, faculty, and staff, with priority enrollment and tuition subsidies available to students at three of the Centers.
- **Athletics and Recreation:** UCI's Intercollegiate Athletic Program features 23 sports, with 11 men's teams, 11 women's teams, and one coed sailing team. Athletics is committed to the welfare of student-athletes and staff, and advocates an environment that promotes excellence in athletic and academic



*UCI students selected the armadillo as the school's mascot in November 1965. This 430-pound bronze statue in the plaza area of the Bren Events Center was a gift from the Class of 1987.*



The men's volleyball team won the NCAA championship on May 5, 2007. It was UCI's first national championship since the men's water polo team took the crown in 1989.

performance, sportsmanship, diversity, and gender equity. Intercollegiate Athletics also supports the University of California's mission of public service and serves to generate a unifying spirit among students, faculty, staff, and alumni that transcends communities, cultures, and generations. The Bren Events Center seats 5,000 for intercollegiate basketball, volleyball, and other events. The Crawford Hall complex, in addition to housing the athletic administration offices, also includes sports medicine, strength and conditioning, and student-athlete academic support services. Crawford Court gymnasium has 760 seats for volleyball. Outdoor facilities include Anteater Stadium, a 2,500-seat facility for soccer and track; the 500-seat Anteater Tennis Stadium; Anteater Ballpark, home to the baseball program; and a five-acre multipurpose field complex. UCI's Anteater Aquatic Complex houses the intercollegiate water polo, swimming, and diving teams. This 64-meter aquatics facility is designed with a movable bulkhead to accommodate multiple activities simultaneously.

Campus Recreation provides UCI students, faculty, and staff with an opportunity to enhance their

campus experience by developing and maintaining a physically active lifestyle through classes and clinics, club sports, fitness and wellness, intramural sports, and outdoor adventures. These programs are offered in the Anteater Recreation Center (ARC), ARC fields, and at other off-campus locations.

## PHYSICAL SETTING

William Pereira's original vision for UCI was that of a university and town growing in unison as the central force in the ultimate urbanization of the 93,000-acre Irvine Ranch. In the four decades since his ideas were first advanced, development of the campus and its surrounding community has been generally consistent with the founding plan. Today, UCI's location combines the cultural and economic resources of an urban area with access to Southern California's spectrum of recreational, scenic, and entertainment venues. Fifty miles south of Los Angeles, five miles from the Pacific Ocean, and nestled in the coastal foothills, UCI lies amid rapidly growing residential communities and the dynamic international business environment of Orange County and the surrounding region.

### Location and Campus Vicinity

The UCI campus consists of approximately 1,475 acres in a setting that is increasingly characterized as urban.<sup>2</sup> The campus is located in the southern portion of the City of Irvine, Orange County, California (see *Figure 2-1*). UCI is adjacent to the City of Newport Beach, and the City of Costa Mesa is located approximately 0.5 mile to the west of the campus. The City of Santa Ana and the City of Lake Forest are situated approximately 2.5 miles to the north and 5 miles to the east, respectively. As shown in *Figure 2-2*, UCI is bounded generally by Campus Drive and Jamboree Road on the north, Culver Drive on the east, Bonita Canyon Drive on the south, and the San Joaquin Hills Transportation Corridor and MacArthur Boulevard on the west. Regional access is provided to UCI via the San Diego (I-405), the Costa Mesa (SR-55), and the Corona Del Mar (SR-73) freeways. Newport Coast Drive provides access to and from the

2. Over the years, approximately 35 acres have been removed from the original 1,510-acre campus as a result of transfers of UCI land for public rights-of-way (e.g., SR-73 toll road, MacArthur Boulevard, and Culver Drive), the sale of property to the U.S. Food and Drug Administration (FDA) for the construction of a regional FDA laboratory, and land identified in the initial gift from The Irvine Company for a marine facility on Upper Newport Bay that was never dedicated to the University.



Figure 2-1. UCI campus and regional vicinity.

beach communities to the south. The San Joaquin Hills Transportation Corridor (a toll road extension of SR-73) provides access to the campus from areas in southern Orange County.

Surrounding privately-owned land uses include established commercial and residential communities, as well as areas currently undergoing commercial and residential development or redevelopment. The Irvine

Business Complex is located in proximity to UCI's North Campus and consists of office and commercial development. The Koll Center, located further west on Jamboree Road in the City of Newport Beach, contains offices, hotels, ancillary retail uses, and restaurants. University Center, adjacent to the main campus, contains restaurant, retail, office, and theater uses serving UCI and the local community. University Center also includes privately-owned apartment and

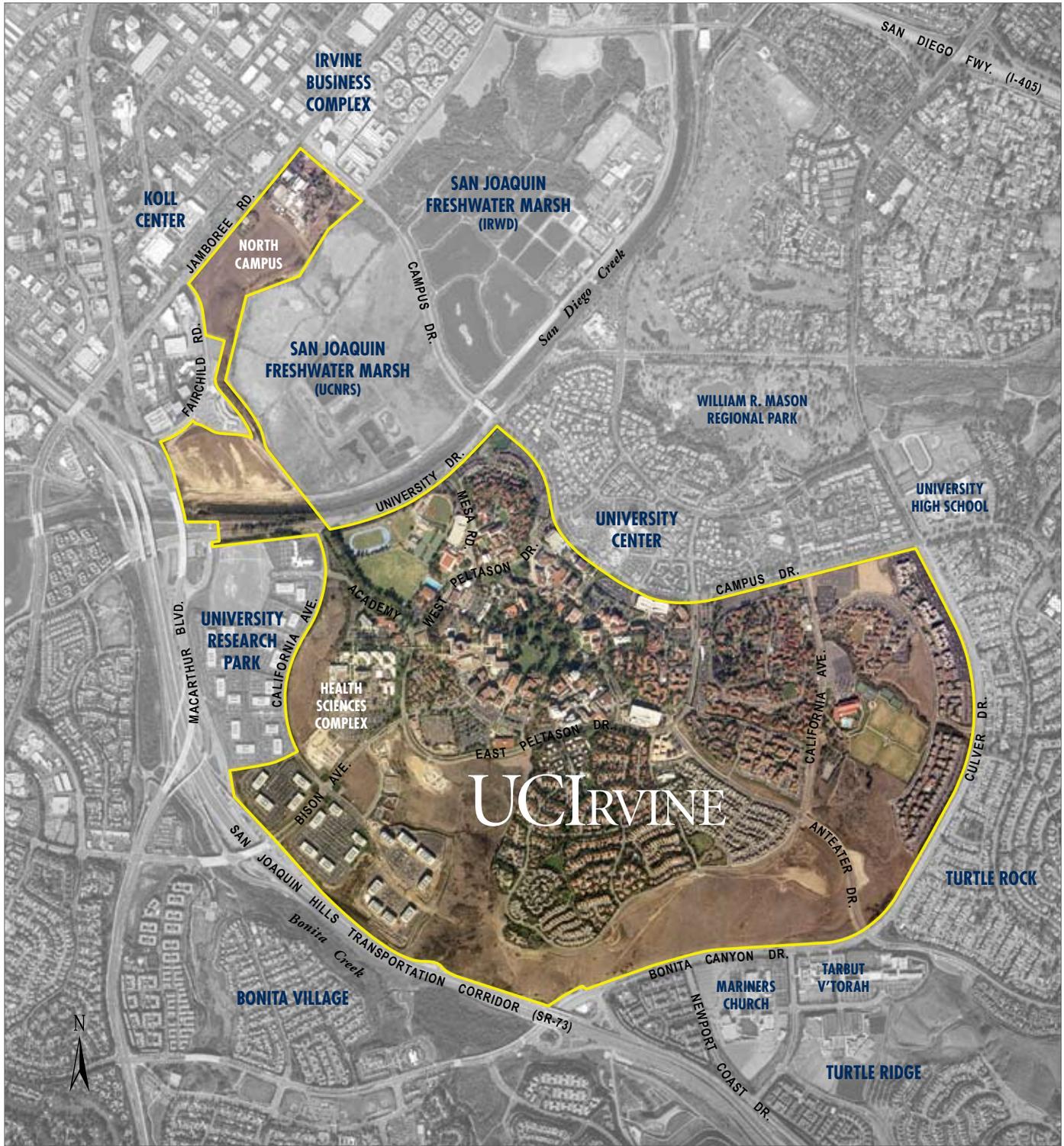


Figure 2-2. UCI campus and local vicinity.

condominium communities that currently provide housing for approximately 2,750 UCI students who choose to live off campus.

The Turtle Rock residential community is located along the eastern boundary of the campus. The Bonita Village residential community and the Turtle Ridge residential community are located south of the campus. Existing institutional facilities within the Turtle Ridge community include Mariners Church and the Tarbut V'Torah School. Along the western border of the campus, adjacent to UCI's Health Sciences complex, lies University Research Park consisting of research and development uses.

Dedicated open space areas proximate to UCI include the 202-acre San Joaquin Freshwater Marsh Reserve located adjacent to the UCI North Campus, owned by The Regents and managed jointly by UCI and the University of California Natural Reserve System. An additional area of the San Joaquin Freshwater Marsh owned and managed by the Irvine Ranch Water District is located northeast of Campus Drive. The Bonita Creek wetlands corridor is located south of the campus. A 2,000-foot reach of San Diego Creek traverses the campus near the creek's inlet to Upper Newport Bay.

## Climate

UCI experiences weather conditions characteristic of the Mediterranean climate in coastal areas of Southern California. Mean daily temperature ranges from a winter low of 42.4°F to a midsummer high of 81.8°F. The prevailing winds blow from the southwest off the Pacific Ocean and provide a cooling influence. They are normally mild, blowing throughout the day and dropping at sundown. Much stronger, hot Santa Ana winds from the northeast occur about six times a year, usually bringing dust from the inland mountains and deserts.

Rainfall at UCI follows the general pattern for the Los Angeles Basin, with an average annual expectancy of around thirteen inches. Heaviest rainfall occurs from December through February. There is seldom any significant precipitation from July through September.

UCI can experience ground fogs, particularly in the winter months. Although heavy, these are usually nocturnal and dissipate by mid-morning.



*The University Center retail complex adjacent to the UCI campus is a popular destination for students and campus employees.*

Because it lies near the coast, the UCI campus generally experiences good air quality. The prevailing southwesterly on-shore wind also serves to abate local smog intrusion.

## Topography

UCI is located in the coastal foothills of Central Orange County, approximately five miles from the Pacific Ocean. The dominant land forms of the campus are rolling hills, gently rising ridges, and a few small arroyos. The ridgelines in the southeast area of the campus reach a maximum elevation of about 300 feet, sloping down to the lowest elevations of approximately 30 feet near the San Diego Creek. The mean elevation is approximately 150 feet in the central campus, 200 feet in the outer campus areas, and 50 feet at the North Campus. Higher coastal hills form a background to the south, while to the north are the vast flat lands of the coastal basin and the distant Santa Ana and San Bernardino Mountains. A portion of the campus is located adjacent to the San Joaquin Freshwater Marsh which is a remnant of a much larger marsh system that once dominated this portion of Orange County.

## Geology

Most of the campus lands are typical geologically of foothill formations in the San Joaquin Coastal Hills of Orange County. The formations generally tilt north and

west. A cover of three to five feet of expansive topsoil occurs over most of the campus. There are a few major outcroppings of igneous and sedimentary rock.

Early geologic surveys discovered a fault trace of the Newport/Inglewood cluster across the UCI campus. It runs approximately northwest from the intersection of Culver Drive and Bonita Canyon Drive, past the Social Sciences Quad, under the Ring Mall bridges, and toward the Claire Trevor School of the Arts site. Beyond this location, the fault trace has not been mapped but it is presumed to exist. Although the fault trace is not reported to be active or potentially active, UCI has established a minimum 50-foot building setback on both sides of the fault.

A fault underlying coastal Orange County that could generate a 6.8- to 7.3-magnitude earthquake was reported in 1999 by a team of researchers led by a professor in UCI's School of Social Ecology. This "blind thrust" fault (an underground fault) is estimated to run about 24 miles from Huntington Beach to Dana Point beneath coastal mesas and the San Joaquin Hills located south of the UCI campus. It is not yet known when the fault last generated an earthquake, but researchers say it has the potential to produce moderate to large earthquakes at 1,650- to 3,000-year intervals.

### Vegetation

UCI's central campus and developed areas of the outer campus have been extensively planted with a mix of exotic and native plant materials. Plantings in the central campus appear as an oasis of green—a virtual arboretum planted with ornamental trees and shrubs from all over the world. Outer campus areas, on the other hand, are characterized by native and drought tolerant landscape palettes. Undeveloped areas in the outer campus are primarily covered with exotic naturalized grasses that historically were used for grazing cattle, with some remnants of native grasses. Coastal sage scrub and related habitat types are located on the steeper terrain in the southern portions of the campus. Arroyos and other drainage areas contain riparian plant species.

Ecologically sensitive areas are generally located in the outer campus, including UCI's Ecological Reserve which contains the majority of coastal sage scrub habitat remaining on the campus. In 1996, UCI enlisted the Ecological Reserve and additional campus lands



*The San Joaquin Freshwater Marsh Reserve represents one of the last remnants of freshwater wetlands that once covered much of Orange County's flood plain. Located in an ancient river-cut channel at the head of Newport Bay, the reserve supports a variety of wetland habitats, including freshwater marshlands, shallow ponds, and channels confined by earthen dikes. Dry upland habitats with a remnant coastal sage scrub community rise on the margins of the reserve.*

in a 37,000-acre reserve established by the Natural Community Conservation Planning (NCCP) program for the central/coastal Orange County subregion. The purpose of the NCCP is to provide long-term, regional protection of natural vegetation and wildlife diversity, while allowing compatible land uses and appropriate development and growth for those agencies and landowners enrolled in the program. As a participating landowner, UCI manages the NCCP reserve areas on the campus in accordance with the terms of the NCCP Implementation Agreement.

## GROUPS AND BUILDINGS

### Existing Development

Approximately 770 acres (52 percent) of the 1,475-acre campus is currently developed, with most development focused in the central academic core. *Table 2-2* summarizes existing development at UCI by land use. Descriptions of land use categories may be found in Chapter 5.

### Circulation

UCI is served by an extensive network of pedestrian, bicycle, transit, and roadway facilities. On-campus

**Table 2-2. Existing UCI Development Compared With 1989 LRDP**

Land Use Category <sup>1</sup>	2005-06 Accommodated in 1989 LRDP	Actual 2005-06 <sup>2</sup>
<b>Academic and Support Space</b> (Gross Square Feet)		
Academic Quads <sup>3</sup>	4,605,300	3,411,300
Health Sciences	1,435,200	743,300
Gateway/Administration <sup>4</sup>	1,288,000	683,200
North Campus	0	32,400
<i>Total Academic and Support Space</i>	7,328,500	4,870,200
<b>Campus Support Services</b> (Gross Square Feet)	721,800	241,200
<b>Student Housing</b> (Beds)		
Academic Core <sup>5</sup>	3,253	4,331
Outer Campus <sup>6</sup>	7,887	6,491
<i>Total Student Housing</i>	11,140	10,822
<b>Faculty and Staff Housing</b> (Dwelling Units)	1,100	1,108
<b>Income-Producing Inclusion Area</b> (Gross Square Feet)	2,148,700 <sup>7</sup>	1,244,600
<b>Parking</b> (Spaces) <sup>8</sup>	13,200	12,600

<sup>1</sup> Descriptions of land use categories may be found in Chapter 5.

<sup>2</sup> Including projects under construction.

<sup>3</sup> Consisting of the Social Sciences, Engineering/Information and Computer Sciences, Physical Sciences, Biological Sciences, Humanities, and Arts quads.

<sup>4</sup> Contains UCI's central administration, Langson Library, the Student Center and other student services, and the Irvine Barclay Theatre.

<sup>5</sup> Consisting generally of housing for lower-division undergraduate students.

<sup>6</sup> Consisting generally of housing for upper-division undergraduates, graduate students, and students with families.

<sup>7</sup> Figure excludes a 400-room hotel identified in the 1989 LRDP because no square footage estimate was provided.

<sup>8</sup> Number of parking spaces provided for UCI commuters and visitors.

facilities are linked to regional pedestrian and bike trails, regional bus transit routes, and local, State and federal highways.

- **Pedestrian and Bicycle Circulation:** Primary pedestrian circulation is accommodated on the Ring Mall and the Radial Malls extending outward through each academic quad. Secondary pedestrian pathways traverse Aldrich Park. Other paths connect the outer campus to the central core. At present, bicycles are permitted on all campus roadways and pedestrian paths, except the Ring Mall. On-street bike lanes are provided on most campus roadways, and UCI's network of off-street bicycle trails and grade-separated roadway crossings is being expanded in multiple phases.
- **Transit Facilities:** The Orange County Transportation Authority offers bus transit service to UCI and areas surrounding the campus. UCI also

operates a private shuttle service for the benefit of its students and employees. Shuttle routes currently serve the academic core and on- and off-campus student housing areas. With over one million riders in 2005-06, UCI operates one of the largest shuttle systems in the region.

- **Campus Roadways:** UCI is served by four radial roads—California Avenue/Academy Way, Mesa Road, Anteatier Drive, and Bison Avenue—that connect to the primary loop road (West/East Peltason Drive) within the central campus. This system channels incoming vehicles directly into parking facilities located at the perimeter of the academic core, enhancing the pedestrian experience on campus. A small number of service roads—which are accessible only to authorized vehicles—penetrate the academic core, the Health Sciences complex, and campus housing areas. To minimize the number of loading docks and refuse collection points, service



The Raymond L. Watson pedestrian bridge connects UCI to restaurants, shops, and offices in the University Center retail complex.

areas are designed to serve building clusters rather than individual structures.

- **Entrances:** As conceived in the original campus plan, there are several entrances to the campus from the surrounding road system, with varying degrees of importance. This affords widely dispersed access to and from the campus. The seven main automobile entry points to the campus are from Campus Drive via West Peltason Drive, East Peltason Drive, and California Avenue; from University Drive via California Avenue and Mesa Road; from the San Joaquin Hills Transportation Corridor via Bison Avenue; and from Culver Drive and Bonita Canyon Road via Anteater Drive. The Watson Bridge accommodates pedestrian traffic between the Gateway quad and the off-campus University Center, and serves as a significant ceremonial entrance to the campus.
- **Arterial Roadways:** Consistent with the original circulation plans developed by William Pereira for the campus community, the external roads bordering UCI—University Drive, Campus Drive, Culver Drive, Bonita Canyon Drive, MacArthur Boulevard, and Jamboree Road—provide good local connections to the surrounding community.

- **Freeway Network:** Traffic from distant points can approach UCI from the Santa Ana (I-5), San Diego (I-405), Newport/Costa Mesa (SR-55), and Corona del Mar (SR-73) Freeways. The San Joaquin Hills Transportation Corridor, a toll road extension of SR-73, provides access to the campus from southern Orange County. These freeways enable the campus to be within reasonable driving distance from the major population centers of metropolitan Los Angeles, metropolitan San Diego, and the San Bernardino-Riverside area. All of Orange County is within one hour's drive from UCI.

### Utility Infrastructure

UCI regularly evaluates and upgrades the utility infrastructure and distribution system serving the campus (i.e., electricity and gas, heating and cooling, water, sanitary sewer, storm drain, telephone and communications, and waste disposal) to ensure adequate facilities and services.

The Central Plant houses facilities to provide the following services to buildings in the academic core: high temperature water, chilled water, compressed air, natural gas, a major percentage of the high voltage electric power, telephone service switchboard, central security system, central automation for intercommunication, and monitoring of air conditioning and heating systems. The plant's services are distributed in an existing utility tunnel that generally follows the Ring Mall in the central campus. The addition in 1997 of a 4.5 million-gallon thermal energy storage facility improved the efficiency and effectiveness of the campus cooling system by storing chilled water produced during off-peak nighttime hours (when electrical demand is reduced) that is then used to air condition campus buildings during daytime hours.

A UCI owned and operated cogeneration (combined heat and power) plant, presently near completion, will help UCI reach its energy efficiency goals. In addition, the project will reduce UCI's pollutant emissions.

### Renovation

UCI facilities require renovation and renewal as obsolescence and normal aging of building and utility infrastructure systems (e.g., plumbing, mechanical, and network technology) become apparent or are legislatively

mandated. Academic disciplines that use sophisticated research methods require technologically modern space to support instruction and research activities. Therefore, planning the renewal and upgrading of existing facilities is an important, ongoing process.

### Environmental Sustainability

Resource sustainability is critically important to the campus, the University of California, the State of California, and the nation. Efficient energy use is central to this objective, and renewable energy and energy-conservation projects provide a means to stabilize campus budgets, increase environmental awareness, reduce the environmental consequences of University activities, and provide educational leadership for the 21st century. In June 2003, UC adopted a comprehensive Green Building Policy and Clean Energy Standard that established systemwide policies to promote sustainable campus development and operations. The Policy incorporates principles of energy efficiency and sustainability in the planning, design, construction, and operation of all capital projects; advocates a portfolio approach to energy use, including energy efficiency, local renewable power, and green power purchases to minimize increased use of non-renewable energy; and establishes a system for monitoring and reporting results. In January 2006, this was updated with a policy for Sustainable Transportation Practices to effectively manage transportation demand, provide transportation options and encourage the use of low-impact vehicles, non-fossil fuels, and creative modes of transport, while ensuring maximum campus access and preserving lifestyle features. In 2007, in response to the requirement that this policy guideline document be re-examined every three years, sections of the Policy were clarified and new sections were added specifically in the areas of: renovation policy, climate change practices, green building operations and maintenance, recycling and waste management, and environmentally preferable procurement. The revised policy is now referred to as the *UC Policy on Sustainable Practices*.

Throughout its history, UCI has endeavored to implement programs and techniques that create environmentally sensitive buildings and systems. UCI has been a leader in incorporating design features, technological adaptations, and planning principles into campus projects to conserve resources and minimize



*On February 27, 2007, UCI celebrated the grand opening of its automobile hydrogen fueling station—the first of its kind in Orange County. When used to deliver energy, hydrogen produces zero or very low emissions. The emissions from a hydrogen fuel cell-powered vehicle contain only water vapor.*

waste products. The 2007 LRDP continues this tradition by promoting sustainable practices, including using water efficiently, solid waste recycling and reuse, employing building design features to improve energy efficiency, utilizing clean-fuel vehicles to improve air quality, and encouraging alternative transportation modes to reduce vehicle miles traveled.

### EXISTING PLANNING AGREEMENTS

Since the preparation of the 1989 LRDP, UCI has entered into various planning agreements and Memoranda of Understanding (MOUs) with other institutions and agencies. As summarized below, these compacts address how UCI would proceed to implement development under its LRDP and as such have the effect of shaping campus physical planning decisions, including those impacting traffic generation, the design of projects along UCI's eastern boundary, and open space management.

- *1988 Memorandum of Understanding with the City of Irvine regarding campus growth.* As a prelude to the 1989 LRDP, this MOU served as a way for UCI and the City of Irvine to identify their respective planning goals and the role that each party would have in the planning and implementation of these goals. It defined procedures for the coordination and implementation of actions to be taken by either party. The MOU also set traffic generation targets for the LRDP.

- *1989 Memorandum of Understanding with the UC Natural Reserve System regarding North Campus development.* This MOU addressed potential impacts to the San Joaquin Freshwater Marsh resulting from development of the North Campus. Notably, the MOU established a buffer zone between any development and the marsh to protect the ecological integrity of the reserve.
- *1992 Development Agreement with the City of Irvine regarding North Campus Inclusion Area.* The purpose of this Development Agreement was to provide a process whereby City of Irvine land use policies and rules, which are otherwise not applicable to typical University-related development, would apply to “for-profit” projects developed by UCI on the North Campus.
- *1996 NCCP Implementation Agreement with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.* Together with thirteen cities and four other major landowners, UCI participates in the Natural Community Conservation Planning (NCCP) program for the central/coastal Orange County subregion. The primary objective of the NCCP program is to conserve natural communities within the 208,000-acre subregion and accommodate compatible land use by focusing on the long-term stability of wildlife and plant communities and including key stakeholders in the process. The NCCP program protects significant areas of twelve major habitat types and covers 39 sensitive plant and animal species. As a participating landowner, UCI agreed to abide by the use restrictions and maintenance terms in this agreement for the 135 acres of campus land enlisted in the NCCP reserve.
- *1998 Memorandum of Understanding with the City of Irvine regarding Culver Drive.* This MOU addressed the realignment of Culver Drive along the eastern boundary of the campus, including how the City of Irvine would acquire University property for additional right-of-way. It also reaffirmed commitments by the parties to cooperate during implementation of the 1989 LRDP, particularly with regard to traffic and circulation improvements.
- *2002 Memorandum of Understanding with the City of Irvine regarding East Campus Student Apartments.* Because the site of the East Campus Student Apartments project is in close proximity to communities surrounding UCI, the intent of this MOU was to facilitate implementation of the project in a manner consistent with the respective planning goals of UCI and the City of Irvine. The MOU included design guidelines to address building setbacks and massing, landscaping, and other elements of the project.
- *2004 Memorandum of Understanding with the City of Irvine regarding Culver Drive and Bonita Canyon Drive.* This MOU clarified how UCI and the City of Irvine would cooperate to implement improvements proposed for Culver Drive and Bonita Canyon Drive, including the University’s consideration for right-of-way acquired by the City, interim erosion control improvements, and environmental management and mitigation.