Major: Biochemistry

University of California Irvine

Bachelor of Biochemistry

Course #	Course Name	Unit	Course Description
93	Bio Sci	4	Cell biology, biochemistry, genetics, and the biology of organ systems.
1A	Chem	4	Atomic structure; general properties of the elements; covalent, ionic, and metallic bonding; intermolecular forces; mass relationships.
1A	Human	8	Humanistic disciplines, including interdisciplinary perspectives on major themes in history, literature, and philosophy. Focuses on major texts from a range of cultural traditions.
2A	Bio Sci	2	Weekly meetings consisting of presentations by faculty, professional staff, and Peer Academic Advisors provide information about the School of Biological Sciences, campus resources, learning skills, and special programs/opportunities.
94	Bio Sci	4	Patterns of diversity, ecology, and evolutionary biology. Emphasis is on the Tree of Life and how its members are distributed and interact.
1B	Chem	4	Properties of gases, liquids, solids; changes of state; properties of solutions; stoichiometry; thermochemistry; and thermodynamics.
1B	Human	8	humanistic disciplines, including interdisciplinary perspectives on major themes in history, literature, and philosophy. Focuses on major texts from a range of cultural traditions.
1C-1LC	Chem	8	Training and experience in basic laboratory techniques
1C	Human	8	humanistic disciplines, including interdisciplinary perspectives on major themes in history, literature, and philosophy. Focuses on major texts from a range of cultural traditions.
2A	Math	4	Introduction to derivatives, calculation of derivatives of algebraic and trigonometric functions; applications including curve sketching, related rates, and optimization. Exponential and logarithm functions.

97	Bio Sci	4	Introduction to genetics. Basic features of replication and expression of DNA, cell division, and gene transmission. Recombination and mutation in diploid organisms.
51A	Chem	4	Fundamental concepts relating to carbon compounds with emphasis on structural theory and the nature of chemical bonding, stereochemistry, reaction mechanisms, and stereoscopic, physical, and chemical properties of the principal classes of carbon compounds.
1LD	Chem	2	Training and experience in basic laboratory techniques.
2B	Math	4	Definite integrals; the fundamental theorem of calculus. Applications of integration including finding areas and volumes. Techniques of integration. Infinite sequences and series. Parametric and polar equations.

194S	Bio Sci	1	Introduces students to the concepts, techniques, and ethics involved in biological sciences laboratory work. Grading Option: Pass/no pass only.
98	Bio Sci	4	Structure and properties of proteins; major biochemical pathways and mechanisms for their control.
51B-51LB	Chem	4	Fundamental concepts relating to carbon compounds with emphasis on structural theory and the nature of chemical bonding, stereochemistry, reaction mechanisms, and stereoscopic, physical, and chemical properties of the principal classes of carbon compounds.
98	Bio Sci	4	Biochemistry and replication of nucleic acids; molecular genetics; protein biosynthesis; genetic code; regulation of expression of genetic information; biochemical evolution
51C-51LC	Chem	4	Fundamental concepts relating to carbon compounds with emphasis on structural theory and the nature of chemical bonding, stereochemistry, reaction mechanisms, and stereoscopic, physical, and chemical properties of the principal classes of carbon compounds.
2D	Math	4	Differential and integral calculus of real-valued functions of several real variables, including applications. Polar coordinates.

M114L	Bio Sci	4	Properties of enzymes and the culture and isolation of mutants of microorganisms.
100	Bio Sci	3	Designed to give an overview of the basic aspects of scientific writing relevant to reporting research in the Biological Sciences
3A	Physics	4	Vectors; motion, force, and energy.
M114	Bio Sci	4	Physical-chemical properties of macromolecules. Structure-function relationships in nucleic acids, protein, carbohydrates, and lipids. Integration and regulation of metabolism. Biochemistry of organs and biochemistry of diseases.
3B-3BL	Physics	4	Fluids; heat; electricity and magnetism
M116	Bio Sci	4	Mechanisms of gene expression; special emphasis on regulatory events that occur in Eukaryotic organisms other than initiation of transcription. Chromatin structure and rearrangement, RNA polymerases, cis- and trans-acting elements, RNA processing, transport and stability, protein synthesis, trafficking, and turnover.
3C-3CL	Physics	4	Waves and sound; optics; quantum ideas; atomic and nuclear physics; relativity.

M116L	Bio Sci	4	Students perform experiments which illustrate the chemical and biological properties of nucleic acids. Emphasis is placed on recent techniques in recombinant DNA technology including gene isolation and characterization.

M121L	Bio Sci	4	Emphasis is placed on learning modern techniques in immunology such as ELISAs, western blotting, immunofluorescent staining assays.
39B	Writing (G.E.)	4	Guided practice in the critical reading and written analysis of both popular and academic prose. Readings selected from literary, academic, journalistic, and fictional genres; writing topics require rhetorical analysis of readings and demonstration of rhetorical principles in student writing. Course may be offered online. Prerequisite: Satisfaction of the UC Entry Level Writing requirement.
39C	Writing (G.E.)	4	Guided writing practice in argumentation, logic, and inquiry. Readings are selected from current nonfiction and from materials students select from the University Library. Research strategies emphasized. Course may be offered online.
7A	Psych (G.E.)	4	Introduction to field of psychology, addressing the application of scientific methods to the study of human development, learning, memory, problem solving, perception, biological mechanisms, emotions and motivation, personality, psychopathology, and effects of diverse social and cultural contexts on human behavior.
9A	Psych(G.E.)	4	Designed to provide freshman with an in-depth survey of general psychology. Topics include biological bases of behavior, sensation, perception, cognition, development, personality, psychopathology, and social psychology.
9B	Psych(G.E.)	4	Designed to provide freshman with an in-depth survey of general psychology. Topics include biological bases of behavior, sensation, perception, cognition, development, personality, psychopathology, and social psychology.
10	English(G.E.)	4	Explores the diversity of human expression manifested in selected works of literature. By engaging with substantial literary texts, students will think critically about how meaning is created and how experience is interpreted in literary language. Repeatability: May be taken for credit 3 times as topics vary.
28A	English(G.E.)	4	Reading of selected texts to explore the ways in which these modes formulate experience. Students write several short analytic papers.
28B	English (G.E.)	4	Reading of selected texts to explore the ways in which these modes formulate experience. Students write several short analytic papers.
1C	Vietmse	4	Designed for students with little or no exposure to Vietnamese. Natural approach with emphasis on four fundamental skills of listening, speaking, reading, and writing. Conducted in Vietnamese.
61A	Pol Sci	4	Examines major theories that attempt to explain the roles of race and ethnicity in U.S. politics
11	Intl St	4	Offers a general overview of the rise of global interdependence in political, economic, demographic, and cultural terms. Considers what drove people from relative isolation into intensified intercourse with one another, and investigates the consequences of this shift.

Science Teacher –Biochemistry Degree $24,000-35,000 a year ranging

Lab Technician – Biochemistry Degree 41,000 a year (average)

Biochemist-Biochemistry Degree 35,000-50,000 a year

Nutritionist- Biochemistry Degree- 35,000-45,000 a year

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University of Irvine has been here since 1965 and is one of the best schools around. UCI has been ranked #1 among University in the U.S. under 50 years on in the *Times Higher Education*. 3 of their researchers have also won noble prizes. They are known for their research and graduate programs and have ranked top 10 for its scholarly impact for law school. UCI has a friendly environment that is great for learning. It has an easy campus access and the buildings are easy to recognize so that people won't get lost.


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