Major Updates 2018-2019

College of Letters and Science

NEW MAJORS:

Major	Description of Major	Major Requirements
CLIMATE SCIENCE/B.S.	The Department of Atmospheric & Oceanic Sciences' new Climate Science major will provide students with the scientific understanding they need to assess climate impacts from both human-induced climate change and natural climate variability, as well as finding solutions to manage and mitigate them. It will also provide understanding of the climate system needed to communicate climate information to decision-makers in the public sector, private sector and nongovernmental organizations.	**Required:** • **Chemistry and Biochemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids and Bases) and **14B** (Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry), or **20A** (Chemical Structure) and **20B** (Chemical Energetics and Change) • **Mathematics 3A** (Calculus for Life Sciences Students), **3B** (Calculus for Life Sciences Students), and **3C** (Ordinary Differential Equations with Linear Algebra for Life Sciences Students), or **31A** (Differential and Integral Calculus), **31B** (Integration and Infinite Studies), **32A** (Calculus of Several Variables), and **33B** (Differential Equations); • **Physics 1A** (Physics for Scientists and Engineers: Mechanics) or **1AH** (Physics for Scientists and Engineers: Mechanics [Honors]), **1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields) or **1BH** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Field [Honors]), **1C** (Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity) or **1CH** (Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity [Honors]), **4AL** (Physics Laboratory for Scientists and Engineers: Mechanics), and **4BL** (Physics Laboratory for

		Scientists and Engineers: Electricity and Magnetism), or **5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light and Optics), and **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics); • **AOS 51** (Fundamentals of Climate Science) • **C&EE/M&AE M20** (Introduction to Computer Programming with MATLAB) or **COMPTNG 10A** (Introduction to Programming) or an equivalent course selected in consultation with the undergraduate advisors; • **Statistics 12** (Introduction to Statistical Methods for Geography and Environmental Studies) or **13** (Introduction to Statistical Methods for Life and Health Sciences)

Herb Alpert School of Music

NEW MAJORS:

Major	Description of Major	Major Requirements
GLOBAL JAZZ STUDIES/B.A.	The **Global Studies Jazz** major provides students with an interdisciplinary education that draws from various areas of the Herb Alpert School of Music, as well as from the arts and social sciences. The major focuses on developing students' skills in performance of multiple jazz styles; knowledge of improvisation, music theory, arranging, and composition; and understanding of the historical and societal context of the development and advancement of jazz in the United States and globally.	**Preparation for the major:** • One to two years of applied jazz studio instruction • One year of musicianship • Exemptions/substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration. • **Audition/interview and supplemental requirements:** In addition to the general UC Application, all applicants are required to interview with program faculty as well as submit a supplemental application by digital upload. Additional fees may apply. Applicants must have a minimum 3.0 GPA at the time of application. Specific guidelines may be found at http://www.schoolofmusic.ucla.edu
MUSIC EDUCATION/B.A.	The UCLA Department of Music, in conjunction with the Graduate School of Education and Information Studies, offers a Bachelor of Arts in **Music Education**--the only music education program in the UC	**Preparation for the major:** • A one-year comprehensive music theory course sequence, covering musicianship and theory, as well as keyboard skills if needed • Two years of applied private instruction on a primary instrument or in voice

	system. Students can earn a California Subject Matter Waiver in music and complete their teaching credential during the senior year of undergraduate studies. The program prepares future music educators to teach in traditional school music programs, cultivates dispositions that encourage innovation and change in the profession, and nurtures socially responsible practices in the classroom and community. This is the only music education program at a public university in California where it is possible to earn a teaching credential as part of a four year undergraduate degree program.	• Two years of participation in a large performance group such as orchestra, choir, or wind ensemble • Exemptions/substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration. • Audition/Interview and Supplemental Requirements: In addition to the general UC Application, all applicants are required to audition/interview as well as submit a supplemental application by digital upload. Letters of Recommendation are required for select areas. Additional fees may apply. Applicants must have a minimum 3.0 GPA at the time of the application. Specific guidelines may be found at: http://www.music.ucla.edu

Luskin School of Public Affairs

NEW MAJORS:

Major	Description of Major	Major Requirements
PUBLIC AFFAIRS/B.A.	The world needs agents of social change whose passion to improve people's lives is matched by the knowledge and skills to deliver results. UCLA's Luskin School of Public Affairs will help cultivate this next generation of civic-minded leaders with a new undergraduate degree, which launched in the fall of 2018. The B.A. in Public Affairs offers an in-depth and engaged educational experience with a clear public service ethos. The undergraduate major is centered around a multidisciplinary foundation in the social sciences, with an applied emphasis on knowledge and methods for improving society. The major includes a required experiential learning capstone in the senior year, connecting the	**Required major preparation coursework:** 8 Public Affairs pre-major courses (UCLA course numbers are listed below): • PA 10: Social Problems and Social Change • PA 20: Power, Politics, and Policy Change in U.S. • PA 30: Comparative Analysis of Wealth, Policy, and Power • PA 40: Microeconomics for Public Affairs • PA 50: Foundations and Debates in Public Thought • PA 60: Using Data to Learn about Society: An Introduction to Empirical Research and Statistics • PA 70: Information, Evidence, and Persuasion • PA 80: How Environments Shape Human Development **For transfer applicants, the following courses can be used as major prep in lieu of the courses above:** • **PA 20:** The equivalent of UCLA's Pol Sci 40 (Introduction to American Politics) • **PA 30:** The equivalent of UCLA's Pol Sci 50 or 50R and Econ 2 (Introduction to Comparative Politics AND Macroeconomics)

	dots between theory and action. This capstone combines a multi-quarter internship in a community or government organization with a seminar series in which students develop a project. Most of these capstone projects will take place in the greater Los Angeles area, providing an amazing opportunity for undergraduates to contribute to our global city in a sustained and substantial way. To be considered for admission, applicants to Public Affairs pre-major must have a minimum cumulative 3.2 GPA in all transferable coursework at the end of the fall term prior to transfer. Students must attain junior level standing (at least 60 semester/ 90 quarter transferable units) by the end of the spring term prior to transfer. California Community college students are strongly encouraged to complete IGETC; all other transfer students are encouraged to make progress toward completion of the Luskin	• **PA 40:** The equivalent of UCLA's Econ 1 or Econ 11 (Microeconomics) • **PA 50:** The equivalent of UCLA's Pol Sci 10 (Introduction to Political Theory) • **PA 60**: The equivalent of UCLA's Stats 10 (Introduction to Statistical Reasoning) **Highly recommended: if your schools offers the equivalent to Soc 20 (Introduction to Sociological Research Methods), it is highly recommended that this course is taken in addition to Stats 10**. **Please note: If the statistics course you complete does not use R for data management and analysis, you will be required to take a data management & analysis course involving the use of R software during your first quarter at UCLA.** • **PA 80.** A course focused on lifespan human development (preferred) or child and adolescent development To be competitive for admission, **it is strongly recommended that students complete four (4) of the major preparation courses or equivalents, including PA 40 and PA 60, by the end of the fall prior to transfer**. Students must take all major preparation courses for a letter grade and receive a B grade or better in those courses to be competitive

	School's general education requirements. NOTE: Applicants are admitted to pre-major status in the College of Letters and Science until prerequisites are satisfactorily completed. **Applicants should note that this major is listed under the College of Letters and Science in the UC Application and that the Luskin School has the same general education requirements as the College of Letters and Science.**	for admission. All additional major preparatory coursework, with the exception of PA 10 and PA 70, should be completed by the end of the spring prior to transfer. If admitted, students must complete all remaining preparatory courses with a B grade or better in their first year at UCLA. Students will be required to submit a supplemental application to the Luskin School during their first year, in order to be admitted to the major. Students must apply to the major *before* they have completed 135 quarter units.

College of Letters and Science

MAJOR NAME CHANGES 2018-2019:

Major	Description of the Major	Summary of Changes

ATMOSPHERIC AND OCEANIC SCIENCES/MATHEMATICS/ B.S. *(formerly Mathematics/Atmospheric and Oceanic Sciences)*	This program is designed to provide rigorous mathematical training with a comprehensive background in topics relevant to atmospheric and oceanic sciences. The program is intended to provide particularly good preparation for graduate studies in a streamlined course of study.
	
	The Atmospheric and Oceanic Sciences/Mathematics major has the following learning outcomes:
	• Fundamental knowledge of the atmospheric and oceanic sciences, and the mathematical tools that enable research to be conducted
	• Identification of potential research areas of interest
	• Experience in conceiving and executing research projects designed to evaluate hypotheses through courses that stress oral and written presentation of research results
		Effective Fall 2018, the B.S in Mathematics/Atmospheric and Oceanic Sciences was disestablished & renamed to **B.S in Atmospheric and Oceanic Sciences/Mathematics.**
		
		2018-2019 Major Preparation Requirements
		
		• One and half years of calculus through multivariable
		• Linear Algebra
		• Differential Equations
		• One year of calculus-based Physics
		• One C++ programming course
		• Two courses from the following:
		  ◦ Climate change
		  ◦ Air pollution
		  ◦ Atmospheric environment

	• Proposition, execution, and evaluation of a research project with the assistance and supervision of a faculty mentor • Tangible capstone product, such as a written thesis, that will be archived and possibly disseminated within and beyond the department	

Herb Alpert School of Music

MAJOR NAME CHANGES 2018-2019:

Major	Description of Major	Summary of Changes
MUSICOLOGY/ B.A. *(formally Music History)*	The goals of the **Musicology major** are grounded firmly in the humanistic study of music, and we interpret Musicology in the broadest possible sense: there is no built-in bias toward art music, Western music, or music of the past. The Musicology major builds on the Herb Alpert School of Music's integrative core course (MUSCLG 6ABC), and then progresses through a series of six upper-division courses on "Music, History, and Culture" (MUSCLG 125A-F). As a whole, this "spine" for the major is committed to a broad historical and theoretical perspective on music – but the individual courses are topic-driven and flexible, so that the passion and expertise of the instructor drives the content. Outside the spine we strive for flexibility – wherever possible we encourage majors to find their upper-division electives from among the rich offerings of the School of Music. The major includes a performance requirement, which can be fulfilled in a number of ways, and does not require formal musical training.	**Effective Spring 2018**, the B.A. in Music History major has been renamed to ***B.A. in Musicology***. **2018-2019 Major Requirements** Recommend (not required preparation for the major: • 4 semester/6 quarter units of music performance • One year of music theory (or equivalent) as preparation for UCLA's Music Theory Placement Exam and entrance to Musicology courses • 4 semester/quarter units of musicianship Exemptions/substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration.

		In addition to the general UC Application, all applicants are required to interview with departmental faculty as well as submit a supplemental application by digital upload. Additional fees may apply. Applicants must have a minimum 3.0 GPA at the time of application. Specific guidelines may be found at http://www.musicology.ucla.edu

College of Letters and Science

MAJORS WITH UPDATES FOR 2018-2019:

Major	2017-2018 Major Requirements	2018-2019 Major Requirements
ANTHROPOLOGY/B.S.	**Required:** • **Anthropology 1** (Human Evolution)**, 2** (Archaeology, Introduction), **3** (Culture and Society)**,** and **4** (Culture and Communication) • **Life Sciences 1** (Evolution, Ecology, and Biodiversity) **2** (Cells, Tissues, and Organs), **3** (Introduction to Molecular Biology)**, 4** (Genetics), **23L** (Introduction to Laboratory and Scientific Methodology) **OR 7A** (Cell and Molecular Biology), **7B** (Genetics, Evolution, and Ecology)**, 7C,** (Physiology and Human Biology)**, 23L** (Introduction to Laboratory and Scientific Methodology) • **Chemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids and Bases)**, 14B** (Thermodynamics,	**Required:** • **Anthropology 1** (Human Evolution)**, 2** (Archaeology, Introduction), **3** (Culture and Society)**,** and **4** (Culture and Communication) • **Life Sciences 7A** (Cell and Molecular Biology), **7B** (Genetics, Evolution, and Ecology)**, 7C,** (Physiology and Human Biology)**, 23L** (Introduction to Laboratory and Scientific Methodology) • **Chemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids and Bases)**, 14B** (Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry)**, 14BL** (General and Organic Chemistry Laboratory I)**, 14C** (Structure of Organic Molecules), **OR Chemistry & Biochemistry 20A** (Chemical Structure)**, 20B** (Chemical Energetics and Change)**, 20L** (General Chemistry Laboratory), **30AL** (General Chemistry Laboratory II)**, 30A** (Organic Chemistry I: Structure and Reactivity), **Mathematics 3A** (Calculus for Life Science Students) **3B** (Calculus for Life Science Students)**, 3C** (Ordinary Differential Equations and Linear Algebra for Life Science Students), and **Statistics 12** (Introduction to Statistical Methods for Geography and Environmental Studies) **OR Mathematics 31A** (Differential and Integral Calculus)**, 31B** (Integration and Infinite Series), and **Statistics 12** (Introduction to Statistical Methods for

	Electrochemistry, Kinetics, and Organic Chemistry)**,** **14BL** (General and Organic Chemistry Laboratory I)**, 14C** (Structure of Organic Molecules), **OR Chemistry & Biochemistry 20A** (Chemical Structure)**, 20B** (Chemical Energetics and Change)**, 20L** (General Chemistry Laboratory)**, 30AL** (General Chemistry Laboratory II)**, 30A** (Organic Chemistry I: Structure and Reactivity) • **Mathematics 3A** (Calculus for Life Science Students) **3B** (Calculus for Life Science Students)**, 3C** (Ordinary Differential Equations and Linear Algebra for Life Science Students), and **Statistics 12** (Introduction to Statistical Methods for Geography and Environmental Studies) **OR Mathematics 31A** (Differential and Integral Calculus)**, 31B** (Integration and Infinite Series), and	Geography and Environmental Studies), **or Life Sciences 30A** (Mathematics for Life Scientists), **30B**(Mathematics for Life Scientists), and **Statistics 13** (Introduction to Statistical Methods for Life and Health Sciences) • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** (Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics), **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) **Summary of changes:** • Students transferring **fall 2019 and later** must complete the equivalent of **UCLA's Life Science 7A, 7B, and 7C courses** in order to satisfy major prep for these majors. Life Sciences 1, 2, 3, and 4 were phased out during Winter 2018.

	Statistics 12 (Introduction to Statistical Methods for Geography and Environmental Studies), **or Life Sciences 30A** (Mathematics for Life Scientists), **30B**(Mathematics for Life Scientists), and **Statistics 13** (Introduction to Statistical Methods for Life and Health Sciences) • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** (Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics), **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics)	
AMERICAN LITERATURE AND CULTURES/B.A.	**Required:** • **English Composition 3** (English Composition, Rhetoric, and Language) • **English 4W** (Critical Reading and Writing) **or 4HW** (Critical Reading and Writing	**Required:** • **English 3** (English Composition, Rhetoric, and Language) • **English 4** (Critical Reading and Writing) or **4HW** (Critical Reading and Writing – Honors) **or 4WS** (Critical Reading and Writing – Service Learning) • **English 11** (Introduction to American Culture) • **English 87** (Topics in American Cultures)

	(Honors) **or 4WS** (Critical Reading and Writing - Service Learning)**, 10A** (Literatures in English to 1700)**, 10B** (Literatures in English, 1700 to 1850)**, 10C** (Literatures in English, 1850 to Present)	**Summary of Major Changes:** • **Effective fall 2020,** one year of British literature (English 10ABC) will no longer be acceptable major preparation for this major. • **Effective fall 2020**, **English 11** (American Cultures) and **English 87** (Topics in American Cultures) are new required major prep.
ASIAN AMERICAN STUDIES/B.A.	**Recommended: Two courses from** • **Asia Am 10** (History of Asian Americans) • **Asia Am 20** (Contemporary Asian American Communities) • **Asia Am 30** (Asian American Literature and Culture) • **Asia Am 40** (Asian American Movement) • **Asia Am 50** (Asian American Women)	**Recommended: One course from** • **Asia Am 10 or 10W** (History of Asian Americans) • **Asia Am 20 or 20W** (Contemporary Asian American Communities) • **Asia Am 30 or 30W** (Asian American Literature and Culture) • **Asia Am 40 or 40W** (Asian American Movement) • **Asia Am 50 or 50W** (Asian American Women) **Summary of Major Changes:** • **Asia Am 20W, 30W, 40W & 50W** have been added as course options to meet prep major. • NOTE: Students should save syllabi for all Asian American studies courses to petition the department for exemption from lower division requirements after admission
BIOCHEMISTRY/B.S.	**Required:** • **Chemistry & Biochemistry 20A** (Chemical Structure)**, 20B** (Chemical Energetics and Change)**, 20L** (General	**Required:** • **Chemistry & Biochemistry 20A** (Chemical Structure)**, 20B** (Chemical Energetics and Change)**, 20L** (General Chemistry Laboratory)**, 30AL** (General Chemistry Laboratory II)**, 30A** (Organic Chemistry I: Structure and Reactivity), **30B**

	Chemistry Laboratory), **30AL** (General Chemistry Laboratory II)**, 30A** (Organic Chemistry I: Structure and Reactivity), **30B** (Organic Chemistry II: Reactivity, Synthesis, and Spectroscopy), **30BL** (Organic Chemistry Laboratory I), **30C** (Organic Chemistry III: Reactivity, Synthesis, and Biomolecules) • **Mathematics 31A** (Differential and Integral Calculus)**, 31B** (Integration and Infinite Series), **32A** (Calculus of Several Variables) • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** (Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics), **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) **OR Physics 1A** (Physics for Scientists and	(Organic Chemistry II: Reactivity, Synthesis, and Spectroscopy), **30BL** (Organic Chemistry Laboratory I), **30C** (Organic Chemistry III: Reactivity, Synthesis, and Biomolecules) • **Mathematics 31A** (Differential and Integral Calculus)**, 31B** (Integration and Infinite Series), **32A** (Calculus of Several Variables) • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** (Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics), **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) **OR Physics 1A** (Physics for Scientists and Engineers: Mechanics)**, 1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields)**, 1C** (Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity)**, 4BL** (Physics Laboratory for Scientists and Engineers: Electricity and Magnetism) • **Life Sciences 7A** (Cell and Molecular Biology), **7B** (Genetics, Evolution, and Ecology)**, 7C,** (Physiology and Human Biology) **AND Life Sciences 23L** (Introduction to Laboratory and Scientific Methodology) **Strongly recommended:** • **Mathematics 33A** (Linear Algebra)

	Engineers: Mechanics)**, 1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields)**, 1C** (Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity)**, 4BL** (Physics Laboratory for Scientists and Engineers: Electricity and Magnetism) • **Life Sciences 2** (Cells, Tissues, and Organs), **3** (Introduction to Molecular Biology)**, 4** (Genetics) **OR 7A** (Cell and Molecular Biology), **7B** (Genetics, Evolution, and Ecology)**, 7C,** (Physiology and Human Biology) **AND Life Sciences 23L** (Introduction to Laboratory and Scientific Methodology) **Strongly recommended:** • **Mathematics 33A** (Linear Algebra)	**Summary of Changes:** • Effective for **fall 2019** admission, students must complete the equivalent for UCLA's Life Science 7A, 7B, and 7C in order to satisfy major preparation.

COGNITIVE SCIENCE/B.S.	**Required- one course from each area:** • **Psych 10** (Introductory Psychology) • **Life Science 1** (Evolution, Ecology, and Biodiversity) OR **Life Science 15** (Life: Concepts and Issues) OR **Phy Sci 3** (Introduction to Human Physiology); • **Chemistry 2** (Introductory Chemistry) OR **Chem 20A** (Chemical Structure) OR **Physics 10** (Physics) OR **Physics 11** (Revolutions in Physics) OR **Physics 1A** (Physics for Scientists and Engineers: Mechanics) OR **Physics 6A** (Physics for Life Science Majors: Mechanics) OR **Ling 1** (Introduction to Study of Language) OR **Ling 20** (Introduction to Linguistic Analysis) • **Math 3A** (Calculus for Life Sciences Students) & **Math 3B** (Calculus for Life Sciences Students) & **Math 3C** OR **Math 31A** (Differential and	**Required-one course from each area:** • **Life Sciences 1** (Evolution, Ecology, and Biodiversity) or **7A** (Cell and Molecular Biology) or **15** (Life: Concepts and Issues) or **Physiological Science 3** (Introduction to Human Physiology) • **Chemistry and Biochemistry 2** (Introductory Chemistry) or **14A** (Atomic and Molecular Structure, Equilibria, Acids, and Bases) or **17** (Chemical Principles) or **20A** (Chemical Structure) or **Linguistics 1** (Introduction to Study of Language) or **20** (Introduction to Linguistic Analysis) or **Physics 10** (Physics) or **11** (Revolutions in Physics) or **1A** (Physics for Scientists and Engineers: Mechanics) or **5A** (Physics for Life Sciences Majors: Mechanics and Energy); • **Mathematics 3A** (Calculus for Life Sciences Students), • **Mathematics 3B** (Calculus for Life Sciences Students) • **Mathematics 3C** (Ordinary Differential Equations with Linear Algebra for Life Sciences Students), or **31A** (Differential and Integral Calculus) and **31B** (Integration and Infinite Studies); • **Philosophy 7** (Introduction to Philosophy of Mind) or **8** (Introduction to Philosophy of Science) or **9** (Principles of Critical Reasoning) or **23** (Meaning and Communication) or **31** (Logic, First Course); • **Program in Computing 10A** (Introduction to Programming) and two courses from **10B** (Intermediate Programming), **10C** (Advanced Programming), **15** (Introduction to Lisp and Symbolic Computation), **16** (Python with Applications), **20A** (Principles of Java Language with Applications), **20B**, (Advanced Topics in MATLAB: Programming for Behavioral

	Integral Calculus) **& Math 31B** (Integration and Infinite Studies); • **Philosophy 7** (Introduction to Philosophy of Mind) OR **8** (Introduction to Philosophy of Science) OR **9** (Principles of Critical Reasoning) OR **23** (Meaning and Communication) OR **31** (Logic, First Course); • **Computing 10A** (Introduction to Programming) and two courses from: **10B** (Intermediate Programming), **10C** (Advanced Programming), **15** (Introduction to Lisp and Symbolic Computation), **20A** (Principles of Java Language with Applications), **30** (Machine Organization and Assembly Language Programming), **40A** (Introduction to Programming for Internet), **60** (Data Structures and Algorithms) & **Psych 20**	Sciences), **30** (Machine Organization and Assembly Language Programming), **40A** (Introduction to Programming for Internet), **60** (Data Structures and Algorithms), • **Psychology 10** (Introductory Psychology), • **Psychology 85** (Introduction to Cognitive Science) • **NOTE: The Cognitive Science department requires that students are eligible to petition to declare the Cognitive Science major by the end of the summer quarter of their third year.** **Summary of Major Changes:** • **Physics 6A** (Physics for Life Sciences Majors: Mechanics) has been discontinued. It has been replaced with **Physics 5A (Physics for Life Sciences majors: Mechanics and Energy).** • **Psych 20** has been renumbered to **20A** • **Psych 20B h**as been added as a computing option

	(MATLAB Programming for Behavioral Sciences; Psych **20B**: Advanced Topics in MATLAB Programming for Behavioral Sciences)	
ENVIRONMENTAL SCIENCE/B.S.	**Required:** • **Chemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids, and Bases), **14B** (Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry), and **14BL** (General and Organic Chemistry Laboratory I) (or **20A** - Chemical Structure), **20B** (Chemical Energetics and Change), and **20L** (General Chemistry Laboratory), • **Earth, Planetary, and Space Sciences 1** (required for the Earth and environmental science minor) or **Environment M10** (Introduction to Environmental Science), • **Life Sciences 7A** (Cell and Molecular Biology) and **7B**	**Required:** • **Chemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids, and Bases), **14B** (Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry), and **14BL** (General and Organic Chemistry Laboratory I) (or **20A** - Chemical Structure), **20B** (Chemical Energetics and Change), and **20L** (General Chemistry Laboratory), • **Environment 10** (Introduction to Environmental Science), • **Geography 7** (Introduction to Geographic Systems) • **Life Sciences 7A** (Cell and Molecular Biology) and **7B** (Genetics, Evolution, and Ecology), • **Mathematics 3A** (Calculus for Life Sciences Students) and **3B** (Calculus for Life Sciences Students) (or **31A** - Differential and Integral Calculus) and **31B** (Integration and Infinite Series), or • **Life Sciences 30A&30B** (Mathematics for Life Scientists) • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy) and **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) (or **1A** - Physics for Scientists and Engineers: Mechanics) and **1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields),

	(Genetics, Evolution, and Ecology), • **Mathematics 3A** (Calculus for Life Sciences Students) and **3B** (Calculus for Life Sciences Students) (or **31A** - Differential and Integral Calculus) and **31B** (Integration and Infinite Series), • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy) and **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) (or **1A** - Physics for Scientists and Engineers: Mechanics) and **1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields), • **Statistics 12** (Introduction to Statistical Methods for Geography and Environmental Studies) or **13** (Introduction to Statistical Methods for Life and Health Sciences)	• **Statistics 12** (Introduction to Statistical Methods for Geography and Environmental Studies) or **13** (Introduction to Statistical Methods for Life and Health Sciences) or **Life Science 40** (Statistics for Life Sciences). **Summary of changes:** • The following three course options have been added to meet preparation for this major: o **Life Sciences 30A/30B** o **Life Sciences 40** o **Geography 7** • **Environment M10** has been updated to **Environment 10**

INTERNATIONAL DEVELOPMENT STUDIES/B.A.	**Required:** • Two courses from **Economics 1** (Principles of Economics), **2** (Principles of Economics), **Geography 4** (Globalization: Regional Development World Economy); • One statistics course from **Economics 41** (Statistics for Economists), **Political Science 6** (Introduction to Data Analysis), **6R** (Introduction to Data Analysis – Research Version), **Statistics 10** (Introduction to Statistical Reasoning), or **12** (Introduction to Statistical Methods for Geography and Environmental Studies); • Three social sciences/area studies courses, each from a different category, selected from **(a) Anthropology 3** (Culture and Society), **(b) Gender Studies 10** (Introduction to Gender Studies), **(c) Geography 3**	**Required:** • **International Development Studies 1** (Introduction to International Development Studies) • One course from **Economics 1** (Principles of Economics), **2** (Principles of Economics), **Geography 4** (Globalization: Regional Development World Economy); • One statistics course from **Economics 41** (Statistics for Economists), **Political Science 6** (Introduction to Data Analysis), **6R** (Introduction to Data Analysis – Research Version), **Statistics 10** (Introduction to Statistical Reasoning), or **12** (Introduction to Statistical Methods for Geography and Environmental Studies); • Three social sciences/area studies courses, each from a different category, selected from: **(a) Anthropology 3** (Culture and Society), **(b) Gender Studies 10** (Introduction to Gender Studies), **(c) Geography 3** (Cultural Geography), **5** (People and Earth's Ecosystems)**, 6** (World Regions: Concepts and Issues), **(d) History 8A** (Colonial Latin America), **8B** (Modern Latin America)**, 8C** (Latin American Social History)**, 9A** (Introduction to Asian Civilizations: History of India)**, 9D** (Introduction to Asian Civilizations: History of Middle East)**, 9E** (Introduction to Asian Civilizations: Southeast Asian Crossroads)**, 10B** (History of Africa, 1800 to Present)**, 10BW** (Introduction to Civilizations of Africa since 1800)**, 11B** (History of China, circa 1000 to 2000)**, 22** (Contemporary World History, 1760 to Present)**, International and Area Studies 1** (Introduction to International and Area Studies)**, 31** (Introduction to

		(Cultural Geography), **5** (People and Earth's Ecosystems), **6** (World Regions: Concepts and Issues), **(d) Global Studies 1** (Globalization: Markets), **(e) History 8A** (Colonial Latin America)**, 8B** (Modern Latin America)**, 8C** (Latin American Social History)**, 9A** (Introduction to Asian Civilizations: History of India)**, 9D** (Introduction to Asian Civilizations: History of Middle East)**, 9E** (Introduction to Asian Civilizations: Southeast Asian Crossroads)**, 10B** (History of Africa, 1800 to Present)**, 10BW** (Introduction to Civilizations of Africa since 1800)**, 11B** (History of China, circa 1000 to 2000)**, 22** (Contemporary World History, 1760 to Present), **International and Area Studies 31** (Introduction to Southeast Asia), **50** (Introduction to Latin	Southeast Asia)**, 50** (Introduction to Latin America)**, (e) Political Science 20** (World Politics)**, 50** (Introduction to Comparative Politics)**, 50R** (Introduction to Comparative Politics – Research Version)**, (f) Sociology 1** (Introductory Sociology); and demonstrated proficiency in **one modern foreign language equivalent to level 6 at UCLA**. Each course must be taken for a letter grade. **Summary of Major Changes:** • **Effective fall 2020,** students will be required to complete **IDS 1** (International Development Studies 1) to satisfy preparation for this major. • Major preparation has changed from **2** courses in Economics to **1 course.** • **IAS 1** (International Area Studies) is a newly added, course option to satisfy the three social sciences/area studies requirement for this major

	America), **(f) Political Science 20** (World Politics), **50** (Introduction to Comparative Politics), **50R** (Introduction to Comparative Politics – Research Version), **(g) Sociology 1** (Introductory Sociology) Demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA. Each course must be taken for a letter grade.	
LIFE SCIENCE MAJORS: • Biology/ B.S. • Ecology, Behavior, and Evolution/ B.S. • Human Biology and Society / B.S. • Marine Biology/ B.S. • Microbiology, Immunology, and Molecular Genetics/ B.S. • Molecular, Cell, and Developmental Biology/ B.S.	**Required:** • **Life Sciences 1** (Evolution, Ecology, and Biodiversity) **2** (Cells, Tissues, and Organs), **3** (Introduction to Molecular Biology)**, 4** (Genetics) **OR & 7A** (Cell and Molecular Biology), **7B** (Genetics, Evolution, and Ecology)**, 7C,** (Physiology and Human Biology)**, 23L** (Introduction to Laboratory and Scientific Methodology)	**Required:** • **Life Sciences 7A** (Cell and Molecular Biology), **7B** (Genetics, Evolution, and Ecology)**, 7C,** (Physiology and Human Biology)**, 23L** (Introduction to Laboratory and Scientific Methodology) • **Chemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids and Bases)**, 14B** (Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry)**, 14BL** (General and Organic Chemistry Laboratory I)**, 14C** (Structure of Organic Molecules), **OR Chemistry & Biochemistry 20A** (Chemical Structure)**, 20B** (Chemical Energetics and Change)**, 20L** (General Chemistry Laboratory), **30AL** (General Chemistry Laboratory II)**, 30A** (Organic Chemistry I: Structure and

• Neuroscience/ B.S. • Physiological Science/ B.S. • Psychobiology/ B.S.	• **Chemistry 14A** (Atomic and Molecular Structure, Equilibria, Acids and Bases)**, 14B** (Thermodynamics, Electrochemistry, Kinetics, and Organic Chemistry)**, 14BL** (General and Organic Chemistry Laboratory I)**, 14C** (Structure of Organic Molecules), **OR Chemistry & Biochemistry 20A** (Chemical Structure)**, 20B** (Chemical Energetics and Change)**, 20L** (General Chemistry Laboratory)**, 30AL** (General Chemistry Laboratory II)**, 30A** (Organic Chemistry I: Structure and Reactivity), **30B** (Organic Chemistry II: Reactivity, Synthesis, and Spectroscopy) • **Mathematics 3A** (Calculus for Life Science Students) **3B** (Calculus for Life Science Students)**, 3C** (Ordinary Differential Equations and Linear Algebra for Life Science Students) **OR Mathematics 31A**	Reactivity), **30B** (Organic Chemistry II: Reactivity, Synthesis, and Spectroscopy) • **Mathematics 3A** (Calculus for Life Science Students) **3B** (Calculus for Life Science Students)**, 3C** (Ordinary Differential Equations and Linear Algebra for Life Science Students) **OR Mathematics 31A** (Differential and Integral Calculus)**, 31B** (Integration and Infinite Series), **32A** (Calculus of Several Variables), **or Life Sciences 30A** (Mathematics for Life Scientists), **30B**(Mathematics for Life Scientists) • **Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** (Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics), **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) **OR Physics 1A** (Physics for Scientists and Engineers: Mechanics)**, 1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields)**, 1C** (Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity)**, 4AL** (Physics Laboratory for Scientists and Engineers: Mechanics)**, 4BL** (Physics Laboratory for Scientists and Engineers: Electricity and Magnetism) • **Statistics 13** (Introduction to Statistical Methods for Life and Health Sciences) **Summary of changes:** • Students transferring **fall 2019 and later** must complete the equivalent of **UCLA's Life Science 7A, 7B, and 7C courses** in order to satisfy preparation for this major. Life

	(Differential and Integral Calculus)**, 31B** (Integration and Infinite Series), **32A** (Calculus of Several Variables), **or Life Sciences 30A** (Mathematics for Life Scientists), **30B** (Mathematics for Life Scientists) • **Physics 6A** (Physics for Life Sciences Majors: Mechanics)**, 6B** (Physics for Life Sciences Majors: Waves, Electricity, and Magnetism)**, 6C** (Physics for Life Sciences Majors: Light, Fluids, Thermodynamics, Modern Physics) **OR Physics 5A** (Physics for Life Sciences Majors: Mechanics and Energy), **5B** (Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics), **5C** (Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics) **OR Physics 1A** (Physics for Scientists and	Sciences 1, 2, 3, and 4 were phased out during Winter 2018. • **UCLA's Physics 6A, 6B, and 6C** series has been discontinued for the fall 2018-19 academic year.

	Engineers: Mechanics)**, 1B** (Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields)**, 1C** (Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity)**, 4AL** (Physics Laboratory for Scientists and Engineers: Mechanics)**, 4BL** (Physics Laboratory for Scientists and Engineers: Electricity and Magnetism) • **Statistics 13** (Introduction to Statistical Methods for Life and Health Sciences)	
PSYCHOLOGY/ B.A.	**Required**: **one course from each area:** • **Life Science 1** (Evolution, Ecology, and Biodiversity) or **15** (Life: Concepts and Issues) or **Phy Sci 3** (Introduction to Human Physiology) • **Chem 2** (Introductory Chemistry), or **20A** (Chemical Structure) or **Physics 10** (Physics) or **11**	**Required**: **one course from each area:** • **Life Science 1** (Evolution, Ecology, and Biodiversity) or **15** (Life: Concepts and Issues) or **Phy Sci 3** (Introduction to Human Physiology) • **Chem 2** (Introductory Chemistry), or **20A** (Chemical Structure) or **Physics 10** (Physics) or **11** (Revolutions in Physics) or **1A** (Physics for Scientists and Engineers: Mechanics) or **6A** (Physics for Life Sciences Majors: Mechanics); • One course from **Mathematics 2** (Finite Mathematics), **Computing 10A** (Introduction to Programming), **Statistics**

	(Revolutions in Physics) or **1A** (Physics for Scientists and Engineers: Mechanics) or **6A** (Physics for Life Sciences Majors: Mechanics); • One course from **Mathematics 2** (Finite Mathematics), **Computing 10A** (Introduction to Programming), **Statistics 10** (Introduction to Statistical Reasoning), or one term of calculus; • One course from **Philosophy 1** (Beginnings of Western Philosophy), **2** (Introduction to Philosophy of Religion), **3** (Historical Introduction to Philosophy), **4** (Philosophical Analysis of Contemporary Moral Issues), **5** (Philosophy in Literature), **6** (Introduction to Political Philosophy), **7** (Introduction to Philosophy of Mind) **8** (Introduction to Philosophy of Science), **9** (Principles of Critical Reasoning), **21** (Skepticism and Rationality),	**10** (Introduction to Statistical Reasoning), or one term of calculus; • One course from **Philosophy 1** (Beginnings of Western Philosophy), **2** (Introduction to Philosophy of Religion), **3** (Historical Introduction to Philosophy), **4** (Philosophical Analysis of Contemporary Moral Issues), **5** (Philosophy in Literature), **6** (Introduction to Political Philosophy), **7** (Introduction to Philosophy of Mind) **8** (Introduction to Philosophy of Science), **9** (Principles of Critical Reasoning), **21** (Skepticism and Rationality), **22** (Introduction to Ethical Theory), **22W** (Introduction to Ethical Theory), **23** (Meaning and Communication), **31** (Logic, First Course); • **Psych 10** (Introductory Psychology) **Summary of changes:** • **Physics 6A** (Physics for Life Sciences majors: Mechanics) has been discontinued. It has been replaced with **Physics 5A** (Physics for Life Sciences majors: Mechanics and Energy).

	22 (Introduction to Ethical Theory), **22W** (Introduction to Ethical Theory), **23** (Meaning and Communication), **31** (Logic, First Course); • **Psych 10** (Introductory Psychology)	

School of Arts and Architecture

MAJORS WITH UPDATES FOR 2018-2019:

Major	Description of the Major	2018-2019 Major Requirements
ARCHITECTURAL STUDIES/ B.A.	The focus of the Architectural Studies major is on the built environment. The curriculum conceives of architecture as a cultural, creative, and technical practice and a discipline with direct social impact. Within the context of a liberal arts education, a finely balanced set of architecture and urban design courses ranging from the history and theory of design to contemporary building technologies will provide students with a diverse foundation of knowledge in the field of architecture and prepare them for graduate school and /or careers in a wide range of fields. **Admission to the Architectural Studies major is very competitive. The most important admission criteria is the supplemental application, which requires a portfolio of creative work. While it**	**Suggested (not required) preparation for the major:** Two courses in the history of architecture [Pre-history-Mannerism and 1600-present], and one introduction to architectural studies course. Most transfer applicants will be required to complete these preparatory courses at UCLA. **Portfolio and Supplemental Requirements:** In addition to the general UC Application, applicants must submit a supplemental application that includes a portfolio of creative work (additional fees may apply). All students must have a cumulative 3.0 GPA at the time of the application (November 30). Students MUST complete the requisite two English courses and one math course by the end of Spring prior to transfer. Students are encouraged to take their required English and math courses as early as possible with at least one English course completed by the end of Fall. Completion of IGETC is not required, but strongly recommended. More information may be found at: www.arts.ucla.edu/apply. Architectural Studies will consider sophomore transfers. For more information about admission criteria for sophomore transfers please visit, www.arts.ucla.edu/apply.

	may be beneficial to complete the courses listed below as preparation/experience, they are not required for admission and there is no guarantee they will satisfy major requirements and/or transfer as exact equivalents of any UCLA courses. Substitutions for lower division requirements will be determined by the department in the summer following admission.	
ART/ B.A.	The **Department of Art** is committed to professional art training and encourages new fields of investigation. Students work in the following media: painting, drawing, sculpture, ceramics, new genres, and art theory. **Admission to the Art major is very competitive. The most important admission criteria is the supplemental application which requires a portfolio of creative work. While it may be beneficial to complete the courses listed below as preparation/experience, they are not required for admission and**	**Suggested (not required) preparation for the major:** One course each in drawing, sculpture, painting, photography, ceramics, and new genres [performance art, video art, installation, and non-studio work]; four courses in art history, including one course covering each of the following art historical periods: 1850s-1920s, 1920s-1960s, 1960s-present. **Portfolio and Supplemental Requirements:** In addition to the general UC Application, applicants must submit a supplemental application that includes a portfolio of creative work (additional fees may apply). All students must have a cumulative 3.0 GPA at the time of the application (November 30). Students MUST complete the requisite two English courses and one math course by the end of Spring prior to transfer. Students are encouraged to take their required English and math courses as early as possible with at least one English

	there is no guarantee they will satisfy major requirements and/or transfer as exact equivalents of any UCLA courses. Substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration.	course completed by the end of Fall. Completion of IGETC is not required, but strongly recommended. More information may be found at: www.arts.ucla.edu/apply. Art will consider sophomore transfers. For more information about admission criteria for sophomore transfers please visit, www.arts.ucla.edu/apply
DANCE/B.A.	The Department of World Arts and Culture/Dance is at the forefront of innovative, interdisciplinary, and cross-cultural studies of the arts, offering a curriculum in which students can explore the vital relationship of the arts and performance to cultural theory and criticism. **The Dance major** thoroughly integrates learning to dance, learning to make dances, and critical interrogation of dance as a cultural practice. Students study a variety of dance techniques form around the world throughout their studies. They enroll in a four-term sequence in dance composition, with additional opportunities to	**Suggested (not required) preparation for the major**: One course each in improvisation/choreography, dance history and theory, and coursework focusing on using dance as a medium to connect and engage community. At least eight courses in various dance techniques particularly modern/postmodern dance, Hip-Hop, West African or Ballet. **Audition/Interview and Supplemental Requirements:** In addition to the general UC Application, applicants must submit a supplemental application (additional fees may apply). Dance applicants must audition, in addition to showing strong academic preparation and evidence of involvement in the arts and community that demonstrates interests in varied cultures. All students must have a cumulative 3.0 GPA at the time of the application (November 30). Students MUST complete the requisite two English courses and one math course by the end of Spring prior to transfer. Students are encouraged to take their required English

	participate in the creation of their own dances, as well as working as dancers in the creation of new works by faculty members and visiting artists. Further, they engage in a core of four courses in the study of scholarly discourse around the body and dance, launching a critical inquiry into their own study of bodily practices, internalization of the embodied experience, and how bodily ideas and embodied experiences are interpreted and communicated outwardly and interpersonally, both locally and globally. **Admission to the Dance major is very competitive. The most important admission criteria is the supplemental application, which includes an audition. While it may be beneficial to complete the courses listed below as preparation/experience, they are not required for admission and there is no guarantee they will satisfy major requirements and/or transfer as exact equivalents of any**	and math courses as early as possible with at least one English course completed by the end of Fall. Completion of IGETC is not required, but strongly recommended. More information may be found at: www.arts.ucla.edu/apply. Dance will consider sophomore transfers. For more information about admission criteria for sophomore transfers please visit www.arts.ucla.edu/apply.

	UCLA courses. Substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration.	
DESIGN|MEDIA ARTS/ B.A.	The **Department of Design|Media Arts** program emphasizes visual, audio, analytical theoretical, and technology mediated work in design and media arts. **This is a three year program which fully integrates computers and other digital technology into the curriculum.** This uniquely challenging program invites students to balance their aesthetic sensibility with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective. **Admission to the School of Design/Media Arts major is very competitive. The most important selection criteria is the portfolio of creative work. While it may be beneficial to complete the courses**	**Suggested (not required) preparation for the major:** one course each in drawing, color theory, two- dimensional and three dimensional form, digital media/computer design, programming for media arts, **letterforms and typography, design history, design culture, and interactivity and media arts.** **Portfolio and Supplemental Requirements:** In addition to the general UC Application, applicants must submit a supplemental application that includes a portfolio of creative work. (additional fees may apply). All students must have a cumulative 3.0 GPA at the time of the application (November 30). Students MUST complete the requisite two English courses and one math course by the end of Spring prior to transfer. Students are encouraged to take their required English and math courses as early as possible with at least one English course completed by the end of Fall. Completion of IGETC is not required, but strongly recommended. More information may be found at: www.arts.ucla.edu/apply

	listed below as preparation/experience, they are not required for admission and there is no guarantee they will satisfy major requirements and/or transfer as exact equivalents of any UCLA courses. Substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration.	Design|Media Arts will consider sophomore transfers. For more information about admission criteria for sophomore transfers, please visit www.arts.ucla.edu/apply.
WORLD ARTS AND CULTURES/ B.A.	The Department of World Arts and Culture/Dance is at the forefront of innovative, interdisciplinary, and cross-cultural studies of the arts, offering a curriculum in which students can explore the vital relationship of the arts and performance to cultural theory and criticism. **The World Arts and Cultures major** highlights culture and representation as key perspectives for understanding creativity in local and global arenas. Three areas of cross-cultural and interdisciplinary study are available:	**Preparation for the major:** All preparatory coursework will be completed at UCLA. Substitutions for lower division requirements will be determined by the department in the summer following admission. Syllabi or other descriptive course documentation may be required for consideration. **Supplemental Requirements:** In addition to the general UC Application, applicants must submit a supplemental application (additional fees may apply). Successful applicants must have strong academic preparation and show evidence of involvement in the arts and community that demonstrates interests in varied cultures. All students must have a cumulative 3.0 GPA at the time of the application (November 30). Students MUST complete the requisite two English courses and one math course by the end of Spring prior

	arts activism, critical ethnographies, and visual cultures. These areas define the department commitment to a range of practices, including ethnography, activisms, visual and related expressive arts, documentary and short films, museum and curatorial studies, performance, and other creative perspectives and methods. Courses combine theory and practice and are ground in culturally diverse artistic expressions.	to transfer. Students are encouraged to take their required English and math courses as early as possible with at least one English course completed by the end of Fall. Completion of IGETC is not required, but strongly recommended. More information may be found at: www.arts.ucla.edu/apply. World Arts and Cultures will consider sophomore transfers. For more information about admission criteria for sophomore transfers please visit www.arts.ucla.edu/apply.