

Education

Education Sciences Major, Bachelor of Science (BS)

The education sciences major explores the field of education via academic inquiry and direct engagement with schools, families, and local and global communities. Through multidisciplinary training and participatory practices in school-based and community contexts, students will come to understand learning inside and outside of official institutions and will learn how to critically analyze current issues in education. The role of digital technologies in a networked world, and their capacity to elide educational time and space, will be an object of study.

Declaring the Major

Beginning Summer 2024, continuing students may declare the Education Major once they have completed two education courses for a letter grade (see below). Students must have a cumulative GPA of 2.0 or higher. Initially, the major will not be capped, and all students who apply to the major will be accepted. If demand exceeds our Departmental capacity, we will consider placing constraints on declaration of the major (similar to other capped majors on campus).

Education Minor

The Education minor offers an opportunity for intellectual inquiry to broaden and complement students' work in their major fields of study. In the process, students will encounter a wide array of professional possibilities in the field of education, enabling those considering a career in the field to make an informed choice.

Applying to the Minor

In order to apply to the Education minor, students must:

1. Attend one of the Education Minor Information Sessions (<http://gse.berkeley.edu/undergraduate-programs-undergraduate-minor-education-information-sessions/>). These sessions, conducted by the Education Minor adviser, give background information about the minor, review requirements and guidelines, and answer questions. Information sessions are held several times during the fall and spring semesters and last from half an hour to an hour. If students are unable to attend the information sessions, they are welcome to meet with the minor advisor during office hours.
2. Submit an online application form, available on the School of Education website (<https://gse.berkeley.edu/undergraduate-programs-undergraduate-minor-education-applying/>). Apply only after attending an information session or meeting with the Education Minor adviser. When completing the online application form, students will be asked to provide a list of courses and fieldwork they have already taken and/or plan to take to complete the requirements of the minor. This is only a plan. Students will not be required to take or use those courses for the minor.

After submitting the online application, the minor adviser will automatically be notified and will review your application for completeness. Unless there are questions, the student will then be considered an Education Minor candidate. The student's email address will be added to the education minor email list so the student can be notified of opportunities

in the field of education, as well as Education Minor program and course updates.

General Guidelines

- All courses taken to fulfill the major requirements below must be taken for letter-graded credit.
- All courses taken to fulfill the major must have a minimum grade of a C-.
- No more than two upper-division courses can overlap between two majors.
- A minimum grade point average (GPA) of 2.0 must be maintained in all courses toward the major, and in all upper-division courses toward the major.

Summary of Degree Requirements

In order to complete the BS in Educational Sciences, students must complete at least 36 upper division course units in Educational Sciences and a minimum of 120 total units to graduate.

In addition to these requirements, students must complete the general university requirements in American History and American Institutions, and the Berkeley Campus requirement in American Cultures.

Upper Division Requirements

To complete the major requirements, students must take 11 total required courses in four domains (Teaching and Learning, Educational Contexts in a Global World, Education and Social Transformation, and Educational Research and Practice).

Students must take an additional 6-8 units (two courses) of upper-division elective coursework, either within the School of Education (including graduate-level courses (<https://guide.berkeley.edu/courses/educ/>)) or from a pre-approved list of electives (https://docs.google.com/document/d/1337lbtwbYqS8C1ATVY9QThCf702FY3bJP_D5D8mtfys/edit/) outside of the School of Education, aligned with elective courses already approved for our undergraduate minor.

Students must take 13 courses from the following areas:

Teaching and Learning (Students take three courses, two of which are required)

Required:

EDUC 130	Knowing and Learning in Mathematics and Science [3]
EDUC 140AC	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World [4]

Select one:

EDUC 114A	Early Development and Education [4]
EDUC 132	Language Learning in Chicanx/Latinx Communities [4]
EDUC 166	Will STEM Save US? The Promises and Perils of STEM Education [3]
EDUC 170	K12 Computer and Data Science Education: Design, Research, and Evaluation [3]

Educational Contexts in a Global World (students select three courses)

EDUC 40AC	From Macro to Micro: Experiencing Education (In)equality in and beyond Schools [4]
EDUC W141	Exploring Digital Pedagogy [3]
EDUC 142	Education in a Global World [3]
EDUC 154	Language in/and the World [3]
EDUC 161	Digital Learning Environments [3]
EDUC W165	Early Learning Environments for Diverse Learners [4]
EDUC 167	Higher Education Policy [3]

Education and Social Transformation (students select three courses)

EDUC 155AC	Asian American Struggles and Collective Learning for Racial Justice [4]
EDUC 163	Contemporary Issues in U.S. Education [3]
EDUC C181	What is the Role of Race in Urban Schools? [3]
EDUC 182AC	The Politics of Educational Inequality [4]
EDUC 188	Latines/xs in Education: Critical Issues and Perspectives [3]
EDUC 190AC	Critical Studies in Education [4]

Educational Research and Practice Capstone (2 courses)

Select one:

EDUC C122	Research Methods for Science and Mathematics K-12 Teachers [3]
EDUC W153	Research in Education: Studying Educational Inequality and Possibility [4]
EDUC 168	Educational Testing in the USA: Issues and Practical Experience [3]

Required capstone research/practicum course (Select one):

EDUC W144	Practicum in Education [3]
EDUC 187A	Teachers of Color in the United States [3]

Two Education Electives

EDUC N40AC	Experiencing Education: Race and Ethnicity Inside Schools [3]
EDUC 75AC	American Sports, Culture, and Education [3]
EDUC 114D	Practicum in Early Development and Education, Children Birth to Age 5 [4]
EDUC W140	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World [4]
EDUC W140A	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World [4]
EDUC C142	Education in a Global World [4]
EDUC 146A	Education and Migration: Indigeneity in Yucatan and Its Diaspora [6]
EDUC C148	Education and International Development [4]
EDUC 150	Advanced Studies in Education [3]
EDUC W161	Digital Learning Environments [3]
EDUC W164	Early Childhood Policy - Children, Contexts, and Politics in Diverse Societies [3]
EDUC 183	High School, The Movie [3]
EDUC 184	Philosophical Foundations of Education [3]
EDUC 186AC	The Southern Border [4]

EDUC 188B	Native American Education: Critical Issues and Possibilities [3]
EDUC 188F	Language, Race, and Power in Education [3]

Elective Courses - Other Departments

Students may also take a maximum of two (2) graduate level courses in the School of Education (200 level) to meet the elective requirement. Instructor permission is required prior to enrollment. Courses must be at least 3 units.

AFRICAM C133A	What is the Role of Race in Urban Schools?	3
AFRICAM 139	Selected Topics of African American Social Organization and Institutions	1-4
ASAMST 146	Asian Americans and Education	4
CHICANO 172	Chicanos and the Educational System	4
CHICANO 180	Topics in Chicano Studies	1-4
COG SCI 1	Introduction to Cognitive Science	4
	or COG SCI 1B Introduction to Cognitive Science	
	or COG SCI N1 Introduction to Cognitive Science	
COLWRIT 25AC	Reading in and about U.S. Education Institutions	3
COLWRIT 143	Foundations of English Language Education	3
COLWRIT 144	Teaching English as a Second Language: Practicum	3
COLWRIT 145	Creating Materials for English Language Education	3
CY PLAN 190	Advanced Topics in Urban Studies	1-4
ETH STD/GEORG 159AC	The Southern Border	4
FRENCH 149	Second Language Acquisition in French	4
GLOBAL C128	Education and International Development	4
INTEGBI/ EPS C100/ GEOG C146	Communicating Ocean Science	4
LINGUIS C146	Language Acquisition	3
PSYCH C143	Language Acquisition	3
PSYCH 131	Developmental Psychopathology	3
PSYCH 140	Developmental Psychology	3
SOCIOL 111C	Sociology of Childhood	4
SOCIOL 113/113AC	Sociology of Education	4
THEATER 140	Pedagogy for Movement Based Classes - Undergraduate Level	3
UGIS 120	Introduction to Applied Language Studies	3
EDUC C122	Research Methods for Science and Mathematics K-12 Teachers	3

Students who have a strong interest in an area of study outside their major often decide to complete a minor program. These programs have set requirements and are noted officially on the transcript, but they are not noted on diplomas.

General Guidelines

1. All minor requirements must be completed before your degree date.
2. All course work to satisfy the minor requirements must be taken at UC Berkeley.
3. Three of the five required courses for the minor must be upper division.

4. All courses used to fulfill the minor requirements must be taken for a letter grade, with the exception of the field work course(s).
5. A minimum overall grade point average (GPA) of 2.0 is required for courses used to fulfill the minor requirements.
6. One Education Minor course may overlap with a student's major or other minor.

Requirements

Core Course

Beginning Summer 2023, students can choose between EDUC 190, EDUC 140, or EDUC 130 for their core course requirement. Alternatively, all core courses are also eligible to be counted as electives if not used as a core course.

EDUC 190AC	Critical Studies in Education	4
EDUC W190	Critical Studies in Education	3
EDUC W190A	Berkeley Changemaker: Critical Studies in Education	4
EDUC W140	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World	4
EDUC 140AC	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World	4
EDUC 130	Knowing and Learning in Mathematics and Science	3

Fieldwork

3 units of minor-approved fieldwork (see below for further details)

EDUC 197	Field Studies	1-4
EDUC W144	Practicum in Education	1-3

Electives

Select three from the following (see below for further details):

EDUC 40AC	From Macro to Micro: Experiencing Education (In)equality in and beyond Schools [4]	
EDUC 52	Understanding Language in Society [3]	
EDUC 75AC	American Sports, Culture, and Education [3]	
EDUC 112	Reforms in Elementary Education: Psychological and Sociocultural Foundations [3]	
EDUC 114A	Early Development and Education [4]	
EDUC/UGIS C122	Research Methods for Science and Mathematics K-12 Teachers [3]	
EDUC 131AC	Classroom Interactions in Science and Mathematics: A Focus on Equity and Urban Schools [3]	
EDUC W140A	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World [4]	
EDUC W141	Exploring Digital Pedagogy [3]	
EDUC 142	Education in a Global World [3]	
EDUC 146A	Education and Migration: Indigeneity in Yucatan and Its Diaspora [6]	
EDUC C142	Education in a Global World	4
EDUC C148/ GLOBAL C128	Education and International Development [4]	
EDUC 150	Advanced Studies in Education [3]	
EDUC W153	Research in Education: Studying Educational Inequality and Possibility [4]	

EDUC 154	Language in/and the World [3]	
EDUC 161	Digital Learning Environments [3]	
EDUC W161	Digital Learning Environments [3]	
EDUC 162A	Teachers' Work [3]	
EDUC 163	Contemporary Issues in U.S. Education [3]	
EDUC W164	Early Childhood Policy - Children, Contexts, and Politics in Diverse Societies [3]	
EDUC W165	Early Learning Environments for Diverse Learners [4]	
EDUC 166	Will STEM Save US? The Promises and Perils of STEM Education [3]	
EDUC 168	Educational Testing in the USA: Issues and Practical Experience [3]	
EDUC 170	K12 Computer and Data Science Education: Design, Research, and Evaluation [3]	
EDUC C181/ AFRICAM C13:	What is the Role of Race in Urban Schools? [3]	
EDUC 182AC	The Politics of Educational Inequality [4]	
EDUC 183	High School, The Movie [3]	
EDUC 186AC/ ETH STD 159AC/ GEOG 159AC	The Southern Border [4]	
EDUC 188	Latines/xs in Education: Critical Issues and Perspectives [3]	
EDUC 188B	Native American Education: Critical Issues and Possibilities [3]	
EDUC 188F	Language, Race, and Power in Education [3]	
AFRICAM 139	Selected Topics of African American Social Organization and Institutions [1-4] (Education and Civil Rights)	
ASAMST 146	Asian Americans and Education [4]	
CHICANO 172	Chicanos and the Educational System [4]	
CHICANO 180	Topics in Chicano Studies [3] (Latinos & the Community College)	
COG SCI 1	Introduction to Cognitive Science [4]	
or COG SCI 1	Introduction to Cognitive Science	
COLWRIT 25A	Reading in and about U.S. Education Institutions [3]	
CY PLAN 190	Advanced Topics in Urban Studies [3] ("The Y-Plan")	
FRENCH 149	Second Language Acquisition in French [4]	
INTEGBI/ EPS C100/ GEOG C146	Communicating Ocean Science [4]	
LINGUIS C146/ PSYCH C143	Language Acquisition [3]	
PSYCH 131	Developmental Psychopathology [3]	
PSYCH 140	Developmental Psychology [3]	
SOCIOL 111C	Sociology of Childhood [4]	
SOCIOL 113	Sociology of Education [4]	
or SOCIOL 1	Sociology of Education	
SOCIOL 180E	Comparative Perspectives on U.S. and European Societies: Education [4]	

THEATER 140	Pedagogy for Movement Based Classes - Undergraduate Level [3]	
UGIS 120	Introduction to Applied Language Studies [3]	
EDUC 190	Critical Studies in Education	4

Fieldwork

There are 2 main options for completing fieldwork:

(1) EDUC 197, Field Studies, includes a number of programs from which to choose. Please consult the list available on the School of Education website (<https://gse.berkeley.edu/academics/undergraduate-programs/undergraduate-minor-education/requirements/>). All of the sections of EDUC 197 are described in the Quicklist and Descriptions PDF available on the School of Education website (<https://gse.berkeley.edu/academics/undergraduate-programs/undergraduate-minor-education/requirements/>).

To obtain the class number for the program/section in which you are interested, contact the site coordinator for that program. 45 hours of fieldwork per semester is equivalent to 1 academic unit.

(2) EDUC W144, Practicum in Education, our web-based field course, serves the Ed Minor mission of developing students' critical habits of mind and reflection in educational research and practice.

Students may enroll in 1, 2 or 3 units of fieldwork within one semester and may take units over multiple semesters. Students may take all 3 units in the same field studies program or may enroll in two or three separate programs.

Electives

Elective courses must be taken for at least 3 units.

A maximum of two graduate-level courses in education may be used to meet the elective requirement.

Students who have completed or plan to complete an education course as part of a UCB Education Abroad program may be able to have it count toward the education minor elective requirement. The course must be in the Department of Education at the University and equivalent to 3 semester credits. Notify the minor adviser if you would like to take advantage of this option.

From time to time, a course may be offered on campus that has significant educational content but is not on the minor approved course list. If you have found such a course and would like to have it considered for one of your electives for the minor, please contact the minor advisor about petitioning the course. A syllabus will be required.

Declaring an Online Education Minor

To apply:

- UC Berkeley students apply through the applying (<https://gse.berkeley.edu/undergraduate-programs-undergraduate-minor-education-applying/>) page of the main Ed Minor website.
- All others, including students at other UCs, apply here (<https://goo.gl/forms/WQumFFZVkiOlsO9vt1/>).

Educating for the 21st Century

Students intending to pursue the online Education minor, "Education for the 21st Century", should contact the Education Minor advisor at edminor@berkeley.edu to answer any questions.

Requirements

To receive the online Minor in Education, "Educating for the 21st Century", students must complete the required core course (EDUC W190), three electives, and three practicum units through EDUC W144. There is no sequence, so students may complete these courses in any order.

- The core course and all electives must be taken for a letter grade. EDUC W144 may be taken P/NP.
- EDUC W144 may be taken for 1, 2 or 3 units per semester, depending on if you intend to spread out your field requirement over multiple semesters. The course is repeatable in order to complete the required 3 units.
- A practicum experience is included as a part of EDUC W140A, so students who choose this elective will only need to complete two additional practicum units through EDUC W144.
- A minimum grade point average (GPA) of 2.0 is required for courses used to fulfill the minor requirements.
- For UC Berkeley students only:
 - a. Minor requirements must be completed prior to the last day of the semester in which you plan to graduate.
 - b. No more than one course may be used to simultaneously fulfill requirements for a student's major and minor programs

Courses

Required Courses

EDUC W190	Critical Studies in Education	3
EDUC W144	Practicum in Education	1-3
Electives (choose three):		
EDUC W140A	The Art of Making Meaning: Educational Perspectives on Literacy and Learning in a Global World	4
EDUC W141	Exploring Digital Pedagogy	3
EDUC W153	Research in Education: Studying Educational Inequality and Possibility	4
EDUC W161	Digital Learning Environments	3
EDUC 130	Knowing and Learning in Mathematics and Science	3
EDUC C142	Education in a Global World	4

Undergraduate students must fulfill the following requirements in addition to those required by their major program.

For detailed lists of courses that fulfill college requirements, please review the College of Letters & Sciences (<https://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/>) page in this Guide.

University of California Requirements

ENTRY LEVEL WRITING (<https://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/entry-level-writing-requirement/>)

All students who will enter the University of California as freshmen must demonstrate their command of the English language by fulfilling the Entry Level Writing requirement. Fulfillment of this requirement is also a

prerequisite to enrollment in all reading and composition courses at UC Berkeley.

AMERICAN HISTORY AND AMERICAN INSTITUTIONS (<http://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/american-history-institutions-requirement/>)

The American History and Institutions requirements are based on the principle that a US resident graduated from an American university, should have an understanding of the history and governmental institutions of the United States.

Berkeley Campus Requirement

AMERICAN CULTURES (<http://americancultures.berkeley.edu/students/courses/>)

All undergraduate students at Cal need to take and pass this course in order to graduate. The requirement offers an exciting intellectual environment centered on the study of race, ethnicity and culture of the United States. AC courses offer students opportunities to be part of research-led, highly accomplished teaching environments, grappling with the complexity of American Culture.

Essential Skills Requirements

QUANTITATIVE REASONING (<http://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/quantitative-reasoning-requirement/>)

The Quantitative Reasoning requirement is designed to ensure that students graduate with basic understanding and competency in math, statistics, or computer science. The requirement may be satisfied by exam or by taking an approved course.

FOREIGN LANGUAGE (<http://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/foreign-language-requirement/>)

The Foreign Language requirement may be satisfied by demonstrating proficiency in reading comprehension, writing, and conversation in a foreign language equivalent to the second semester college level, either by passing an exam or by completing approved course work.

READING AND COMPOSITION (<http://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/reading-composition-requirement/>)

In order to provide a solid foundation in reading, writing, and critical thinking the College requires two semesters of lower division work in composition in sequence. Students must complete parts A & B reading and composition courses in sequential order by the end of their fourth semester.

7 Course Breadth Requirements

BREADTH REQUIREMENTS (<http://guide.berkeley.edu/undergraduate/colleges-schools/letters-science/#breadthrequirementstext>)

The undergraduate breadth requirements provide Berkeley students with a rich and varied educational experience outside of their major program. As the foundation of a liberal arts education, breadth courses give students a view into the intellectual life of the University while introducing them to a multitude of perspectives and approaches to research and scholarship. Engaging students in new disciplines and with peers from other majors, the breadth experience strengthens interdisciplinary

connections and context that prepares Berkeley graduates to understand and solve the complex issues of their day.

Unit Requirements

- 120 total units
- Of the 120 units, 36 must be upper division units

RESIDENCE REQUIREMENTS

For units to be considered in "residence," you must be registered in courses on the Berkeley campus as a student in the School of Education. Most students automatically fulfill the residence requirement by attending classes here for four years, or two years for transfer students. In general, there is no need to be concerned about this requirement, unless you go abroad for a semester or year or want to take courses at another institution or through UC Extension during your senior year. In these cases, you should make an appointment to meet an adviser to determine how you can meet the Senior Residence Requirement.

Note: Courses taken through UC Extension do not count toward residence.

SENIOR RESIDENCE REQUIREMENT

After you become a senior (with 90 semester units earned toward your BA degree), you must complete at least 24 of the remaining 30 units in residence in at least two semesters. To count as residence, a semester must consist of at least 6 passed units. Inter-campus Visitor, EAP, and UC Berkeley-Washington Program (UCDC) units are excluded.

You may use a Berkeley Summer Session to satisfy one semester of the Senior Residence requirement, provided that you successfully complete 6 units of course work in the Summer Session and that you have been enrolled previously in the college.

MODIFIED SENIOR RESIDENCE REQUIREMENT

Participants in the UC Education Abroad Program (EAP), Berkeley Summer Abroad, or the UC Berkeley Washington Program (UCDC) may meet a Modified Senior Residence requirement by completing 24 (excluding EAP) of their final 60 semester units in residence. At least 12 of these 24 units must be completed after you have completed 90 units.

UPPER DIVISION RESIDENCE REQUIREMENT

You must complete in residence a minimum of 18 units of upper division courses (excluding UCEAP units), 12 of which must satisfy the requirements for your major.

Mission

The education sciences major explores the field of education via academic inquiry and direct engagement with schools, families, and local and global communities. Through multidisciplinary training and participatory practices in school-based and community contexts, students will come to understand learning inside and outside of official institutions and will learn how to critically analyze current issues in education. The role of digital technologies in a networked world, and their capacity to elide educational time and space, will be an object of study. The major embodies the School of Education's credo that education is a most powerful transformative force, with an inextinguishable potential to enhance individual well-being and propel social justice and equity.

Learning Goals for the Major

The major in Education is designed to introduce students to theory and research on teaching and learning from the Learning Sciences; to create an awareness of the impact of global interconnection and human diversity on local conceptions and practices of schooling; and to develop an understanding of structural inequality and the role of education in its reproduction and disruption via social transformation.

Among the learning goals we expect students to accomplish through required and elective courses are the following:

- Students will demonstrate an understanding of key ideas about learning and development from the Learning Sciences and be able to apply them to knowledge domains such as STEM, social studies, and literacy and language education.
- Students will demonstrate an understanding of structural inequality and how, rather than simply reproducing social inequalities, education can be used as a tool to promote social justice and prosperity locally and globally. Students will learn how to interrogate and redesign educational policies and practices to address persistent inequalities in education.
- Students will demonstrate an awareness of the impact and implications of global interconnection on education, including how the global is manifested locally in schools, communities, and populations, and the role of multilingual, multicultural curricula.
- Students will demonstrate an understanding of formal and informal learning environments by designing curriculum and learning environments that support the health and development of a diverse range of learners. This includes developing skills to work as tutors and mentors with children and youth locally and/or globally and learning to use digital tools for teaching and communication, including the creation of multimodal texts.
- Students will demonstrate the ability to collect, analyze, and communicate about qualitative and quantitative education data. They will recognize both the potential and the limitations of different research methodologies and data types.
- Students will become aware of potential career pathways and opportunities for graduate study in a wide range of careers in the field of education, from working as a teacher in preschool through high school, to developing education policy and curriculum, and teaching in the postsecondary context.

Major maps are experience maps that help undergraduates plan their Berkeley journey based on intended major or field of interest. Featuring student opportunities and resources from your college and department as well as across campus, each map includes curated suggestions for planning your studies, engaging outside the classroom, and pursuing your career goals in a timeline format.

Use the major map below to explore potential paths and design your own unique undergraduate experience:

View the Educational Sciences Major Map.

The Undergraduate Advisor at the School of Education offers students support and assistance to help guide them through the academic bureaucracy and ensure that they have a successful undergraduate experience at Berkeley:

- Counseling regarding their education and BSE courses
- Declaring the major

- Assessing their progress in the major
- Administrative concerns (i.e., course enrollment, add/drops, L&S policy)
- Major information, Minor Information, courses

You can contact the Undergraduate Advisor at bse-ugrad@berkeley.edu