Graduate School of Education

Courses offered by the Graduate School of Education are listed under the subject code EDUC on the Stanford Bulletin’s ExploreCourses (http://explorecourses.stanford.edu/CourseSearch/search?view=catalog&catalog=&page=0&q=EDUC&filter-catalognumber-EDUC=on) web site.

Aiming towards the ideal of enabling all people to achieve maximum benefit from their educational experiences, the Graduate School of Education seeks to continue as a world leader in ground-breaking, cross-disciplinary inquiries that shape educational practices, their conceptual underpinnings, and the professions that serve the enterprise. The Graduate School of Education prepares scholars, teachers, teacher educators, policy analysts, evaluators, researchers, administrators, and other educational specialists. Two graduate degrees with specialization in education are granted by the University: Master of Arts and Doctor of Philosophy. While no undergraduate majors are offered, the school offers a number of courses for undergraduates, an undergraduate minor and undergraduate honors program, and a variety of tutoring programs.

The Graduate School of Education is organized into three program area committees: Curriculum Studies and Teacher Education (CTE); Developmental and Psychological Sciences (DAPS); and Social Sciences, Humanities, and Interdisciplinary Policy Studies in Education (SHIPS).

In addition, several cross-area programs are sponsored by faculty from more than one area. These programs include the doctoral program in Learning Sciences and Technology Design (LSTD); two master’s level programs: the Stanford Teacher Education Program (STEP) and the Learning, Design, and Technology Program (LDT); and the undergraduate honors and minor programs.

These program area committees function as administrative units that act on admissions, plan course offerings, assign advisers, and determine program requirements. Various concentrations exist within most of these areas. Faculty members are affiliated primarily with one area but may participate in several programs. While there is a great deal of overlap and interdisciplinary emphasis across areas and programs, students are affiliated with one area committee or program and must meet its degree requirements.

Detailed information about admission and degree requirements, faculty members, and specializations related to these area committees and programs can be found in the Academics section of the School’s website (https://ed.stanford.edu/academics).

The Graduate School of Education offers an eight-week summer session for students admitted students only. The school offers no correspondence or extension courses, and in accordance with University policy, no part-time enrollment is allowed. Work in an approved internship or as a research assistant is accommodated within the full-time program of study.

Undergraduate Programs in Education

The Graduate School of Education offers a minor and an honors program at the undergraduate level. Further information about these programs can be found at the Graduate School of Education (https://ed.stanford.edu/academics) web site.

Regardless of whether they are enrolled in one of these undergraduate programs, undergraduates are also welcome in many graduate-level courses at the GSE.

Graduate Programs in Education

The Graduate School of Education offers Master of Arts and Doctor of Philosophy degrees in several programs described below. University and Graduate School of Education requirements must be met for each degree. The University requirements are detailed in the “Graduate Degrees (http://stanford.edu/dept/registrar/bulletin/4901.htm)” section of this bulletin. Students are urged to read this section carefully, noting residency, tuition, and registration requirements. A student who wishes to enroll for graduate work in the Graduate School of Education must be admitted to graduate standing by one of the school’s area committees and with the approval of the Associate Dean of Student Affairs.

Complete information about admissions procedures and requirements is available from Graduate Admissions (http://studentaffairs.stanford.edu/gradadmissions), or at the Graduate School of Education (https://ed.stanford.edu/admissions) web site. All applicants, except coterminal applicants, must submit scores from the Graduate Record Examination General Test (verbal, quantitative, and analytical or analytical writing areas); TOEFL scores are also required from those whose first language is not English. Applicants to the Stanford Teacher Education Program are also required to submit specific test scores or acceptable equivalents as required by the California Commission on Teacher Credentialing; see the section on STEP. Test information is available at the Graduate School of Education (https://ed.stanford.edu/admissions) web site.

Honors Program in Education

An honors program in Education is available to undergraduates to supplement their regular majors by applying their studies to the field of education, broadly conceived. This program enables qualified undergraduates at Stanford to extend the training in their major field of study by pursuing additional courses and a research thesis in a related area in the study of education.

Students apply for entry during the junior year. Application information can be found at the Graduate School of Education (https://ed.stanford.edu/academics/undergraduate/honors) web site. The current director of the honors program is Professor John Willinsky.

Near the end of Spring Quarter, successful candidates for honors present brief reports of their work and findings at a mini-conference that all the honors students in Education, as well as other members of the academic community, attend.

Required Coursework:

1. Students are required to enroll in the Undergraduate Honors Seminar during their senior year: EDUC 199A Undergraduate Honors Seminar (Winter, 1 credit), EDUC 199B Undergraduate Honors Seminar (Winter, 1 credit), and EDUC 199C Undergraduate Honors Seminar (Spring, 1 credit)

2. Students are required to enroll in Honors Research (EDUC 140 Honors Research) with their adviser during Winter and Spring quarters of their senior year. The number of units is to be determined in consultation with the faculty adviser.

3. Students must complete a minimum of 3 courses taken for a minimum of 3 units each in Education (EDUC units). All courses must be taken for a letter grade. Coursework completed for the Honors program in Education should address varied topics in the field of education, and must be approved by the Honors Director and student’s faculty adviser.
Minor in Education (Undergraduate)

The Graduate School of Education awards an undergraduate minor in the field of Education. The minor is structured to provide a substantial introduction to education through a broad-based and focused study of educational research, theory and practice. The goals of the minor are to allow undergraduates to develop an understanding of the core issues facing educators and policymakers, to make connections to their major programs of study, and to provide rigorous preparation for graduate studies in education.

Students interested in pursuing an undergraduate minor in Education begin by contacting the minor director (Jennifer Lynn Wolf, jlwolf@stanford.edu), who is responsible for advising all candidates and approving each student’s minor plan of study. Applications for the minor are due no later than the second quarter of the junior year.

The Education minor requires three core courses to ensure coverage of the disciplines of the field, while allowing flexibility for students wanting to pursue specific interests within Education. In order to graduate with a minor in Education, undergraduates must complete the minor program of study as described here, for a total of not less than 20 units and not more than 30 units, with a minimum of six courses.

Course Requirements and Distribution

1. All minor students are required to take the minor core course:
   
   - **EDUC 101 Introduction to Teaching and Learning**
   - Units: 4

2. All students are also required to take two foundational courses, such as the following:
   
   - **EDUC 103B Race, Ethnicity, and Linguistic Diversity in Classrooms: Sociocultural Theory and Practices**
   - Units: 3-5
   - **EDUC 110 Sociology of Education: The Social Organization of Schools**
   - Units: 4
   - **EDUC 120C Education and Society**
   - Units: 4-5
   - **EDUC 201 History of Education in the United States**
   - Units: 3-5
   - **EDUC 204 Introduction to Philosophy of Education**
   - Units: 3

3. Each student identifies a subfield of study in which to take at least three elective courses. Established subfields of study within the School of Education include: Teaching and Learning; Education Research and Policy; and Educational Technology. Suitable elective courses include:
   a. **Subfield 1: Teaching and Learning**
   - **EDUC 103A Tutoring: Seeing a Child through Literacy**
   - Units: 4
   - **EDUC 111 The Young Adult Novel: A Literature For and About Adolescents**
   - Units: 4
   - **EDUC 112X Urban Education**
   - Units: 3-4
   - **EDUC 121X Hip Hop, Youth Identities, and the Politics of Language**
   - Units: 3-4
   - **EDUC 149 Theory and Issues in the Study of Bilingualism**
   - Units: 3-5
   - **EDUC 171 Early Childhood Education Practicum**
   - Units: 2-4
   - **EDUC 256 Psychological and Educational Resilience Among Children and Youth**
   - Units: 4
   - **EDUC 357 Science and Environmental Education in Informal Contexts**
   - Units: 3-4

   a. **Subfield 2: Education Research and Policy**
   - **EDUC 117 Research and Policy on Postsecondary Access**
   - Units: 3
   - **EDUC 121X Hip Hop, Youth Identities, and the Politics of Language**
   - Units: 3-4
   - **EDUC 165 History of Higher Education in the U.S.**
   - Units: 3-5
   - **EDUC 197 Education, Gender, and Development**
   - Units: 4
   - **EDUC 218 Topics in Cognition and Learning: Executive Function**
   - Units: 3
   - **EDUC 223 Good Districts and Good Schools: Research, Policy, and Practice**
   - Units: 3-4
   - **EDUC 277 Education of Immigrant Students: Psychological Perspectives**
   - Units: 4

4. Course work completed for the Education Minor must meet the following criteria:
   - All courses must be taken for a letter grade.
   - All courses must be completed with a minimum GPA of 3.0.
   - Courses used to fulfill the minor may not be used to fulfill any other department degree requirements (major or minor).
   - All courses must be taken at Stanford University.

Coterminal Bachelor's and Master's Program in Education

The Graduate School of Education admits a small number of students from undergraduate departments within the University into a coterminal bachelor’s and master’s program. For information about the coterminal option through the Stanford Teacher Education Program (STEP), see the details under STEP. Students in this program receive the bachelor’s degree in their undergraduate major and the master’s degree in Education. Approval of the student’s undergraduate department and admission to the School of Education M.A. program are required. Undergraduates may apply when they have completed at least 120 units toward graduation (UTG). The number of units required for the M.A. degree depends on the program requirements within the Graduate School of Education; the minimum is 45 units.

Applicants may learn more about the coterminal application process and download the application from the Graduate School of Education’s (https://ed.stanford.edu/admissions/application-reqs) website.

University requirements for the coterminal M.A. are described in the "Coterminal Bachelor's and Master's Degrees (http://exploredegrees.stanford.edu/archive/2014-15/cotermdegrees)" section of this bulletin. For University coterminal degree program rules and University application forms, see the Stanford Undergrad Coterm Guide (http://undergrad.stanford.edu/advising/student-guides/coterm) .

Master of Arts in Education

The M.A. degree is conferred by the University upon recommendation of the faculty of the Graduate School of Education. The minimum unit requirement is 45 quarter units earned at Stanford as a graduate student. Students must maintain a grade point average (GPA) of 3.0 or better in courses applicable to the degree, and a minimum of 27 units must be taken.
in the Graduate School of Education. Students typically enroll in 15 to 18 units per quarter. They must enroll in at least 11 units of work each quarter unless their program makes special provision for a lower quarterly minimum. Master’s students should obtain detailed program requirements from the Master’s Handbook (https://ed.stanford.edu/academics/masters-handbook). Some programs require a final project or scholarly paper. Additional detailed information regarding program content, entrance, and degree requirements is available at the Graduate School of Education’s (https://ed.stanford.edu/admissions/application-reqs) web site. Before the program begins, each student is assigned a faculty adviser from the appropriate area committee to begin early planning of a coherent program.

Master of Arts degrees are offered for the following specializations:

- Curriculum and Teacher Education (CTE) (This is not a credentialing program; see STEP below.)
- International Comparative Education (ICE)
- International Education Policy Analysis (IEPA)
- Joint Degree with Graduate School of Business (M.B.A./M.A.)
- Joint Degree with Law School (J.D./M.A.)
- Joint Degree with Public Policy Program (M.A./M.P.P.)
- Learning, Design, and Technology (LDT)
- Policy, Organization, and Leadership Studies (POLS)

In addition, an M.A. degree with a teaching credential is offered in the Stanford Teacher Education Program.

**Stanford Teacher Education Program (STEP)**

STEP is a 12-month, full-time program leading to a Master of Arts and a preliminary California teaching credential. STEP offers a Master of Arts in Education that prepares program graduates for careers as teachers in single or multiple subject classrooms. STEP Elementary prepares students to become teachers in multiple subject classrooms. STEP Secondary prepares students to become teachers of English, World Languages (French, German, Japanese, Mandarin, Spanish), Mathematics, Science (biology, chemistry, earth science, physics), and History/Social Science. STEP seeks to prepare successful schools and classrooms.

The 12-month STEP year begins in June with a summer quarter of intensive academic preparation and placement in a local summer school. During the academic year, students continue their course work and begin year-long field placements under the guidance of expert teachers in local schools. The Master of Arts and teaching credential require a minimum of 45 quarter units, taken during four quarters of continuous residency.

Stanford undergraduates who enroll in STEP through the coterminal program must complete their undergraduate coursework and have their bachelor's degree conferred prior to beginning in the STEP year. Coterminal STEP students graduate with a Master of Arts in Education and a recommendation for a preliminary California teaching credential.

Applicants to STEP Elementary are required to pass the California Basic Educational Skills Test (CBEST), an approved out of state basic skills exam, or CSET: Writing Skills. Applicants must also pass the California Multiple Subject Examination for Teachers (CSET), and the Reading Instruction Competence Assessment Test (RICA).

Applicants to STEP Secondary are required to pass the California Basic Educational Skills Test (CBEST) or an approved out of state basic skills exam, and must demonstrate subject matter competence in one of two ways:

1. by passing the California Subject Examination for Teachers (CSET) in their content area; or
2. by completing a California state-approved subject matter preparation program.

Further information regarding admission requirements, course work, and credential requirements is available at the Stanford Teacher Education Program website. (https://gse-step.stanford.edu)

**Doctoral Degrees in Education**

The Graduate School of Education offers the Doctor of Philosophy (Ph.D.) degree in all program area committees. The degree is conferred by the University upon recommendation by the faculty of the Graduate School of Education and the University Committee on Graduate Studies. The Ph.D. requires a minimum of 135 units of course work and research completed at Stanford beyond the baccalaureate degree. Students may transfer up to 45 units of graduate course work. Students must consult with the doctoral programs officer if they intend to transfer prior course work. Students must maintain a grade point average (GPA) of 3.0 (B) or better in courses applicable to the degree.

Students should note that admission to the doctoral program does not constitute admission to candidacy for the degree. Students must qualify and apply for candidacy by the end of their second year of study and should obtain information about procedures and requirements during their first year from the doctoral programs officer in Cubberley 135.

The Ph.D. degree is designed for students who are preparing for research work in public school systems, branches of government, or specialized institutions; teaching roles in education in colleges or universities, and research connected with such teaching; or other careers in educational scholarship and research.

Ph.D. students must complete a minor in another discipline taught outside the school, or hold an acceptable master’s degree outside the field of education, or complete an approved individually designed distributed minor that combines relevant advanced work taken in several disciplines outside the school.

Upon admission, the admitting area committee assigns an initial adviser from its faculty who works with the student to establish an appropriate and individualized course of study, a relevant minor, and project research plans. Other faculty members may also be consulted in this process. Details about administrative and academic requirements for each area committee and the Graduate School of Education, along with the expected time frame to complete program milestones, are given in the publication Graduate School of Education Doctoral Degree Handbook, available for download at http://ed.stanford.edu/academics/doctoral-handbook.

The following doctoral specializations, with their sponsoring area and concentration, are offered:

- Anthropology of Education (SHIPS)
- Developmental and Psychological Sciences (DAPS)
- Economics of Education (SHIPS)
- Educational Linguistics (SHIPS)
- Educational Policy (SHIPS)
- Elementary Education (CTE)
- Higher Education (SHIPS)
- History/Social Science Education (CTE)
- History of Education (SHIPS)
- International Comparative Education (SHIPS)
- Learning Sciences and Technology Design (CTE, DAPS, SHIPS)
- Linguistics (SHIPS)
- Literacy, Language, and English Education (CTE)
- Mathematics Education (CTE)
- Organizational Studies (SHIPS)
- Philosophy of Education (SHIPS)
Ph.D. Minor in Education

Candidates for the Ph.D. degree in other departments or schools of the University may elect to minor in Education. Requirements include a minimum of 20 quarter units of graduate course work in Education and a field of concentration. Students choosing to minor in Education should meet with the Associate Dean for Student Affairs to determine a suitable course of study early in their program.


Dean: Deborah Stipek

Associate Dean for Faculty Affairs: Francisco O. Ramirez

Associate Dean for Student Affairs: Eamonn Callan

Senior Associate Dean for Administration: Stephen Olson

Associate Dean for External Relations: Rebecca T. Smith

Assistant Dean for Academic Services: Shu-Ling Chen

Assistant Dean for HR, Faculty Affairs, Facilities, and Admin Support: Priscilla Fiden

Assistant Dean for Information Technology and CTO: Paul Kim


Associate Professors: Anthony L. Antonio, Brigid J. Barron, Eric Bettinger, Bryan Brown, Ari Y. Kelman, David Rogosa, Mitchell Stevens

Assistant Professors: Nicole M. Ardoin, Maren Songmy Aukerman, Paulo Blikstein, Leah Gordon, Jennifer Langer-Osuna, Jelena Obradović, Candace Thille

Professors (Teaching): Shelley Goldman, Rachel Lotan

Associate Professors (Teaching): David Brazier, Ira Lit, Christine Min Wotipka

Professor (Research): David Plank

Associate Professor (Research): Janet Carlson

Assistant Professor (Research): Michelle Reinginger

Courtesy Professors: Richard Banks, Stephen Barley, Albert Camarillo, Carol Dweck, Eric Hanushek, William Koski, John C. Mitchell, Terry Moe, Clifford Nass, Brad Osgood, John Rickford, Cecilia Ridgeway, Caroline Winterer

Courtesy Associate Professors: Stephen Cooper, Robert Reich

Courtesy Professor (Teaching): Don Barr

Overseas Studies Courses in Education

The Bing Overseas Studies Program (http://bosp.stanford.edu) manages Stanford study abroad programs for Stanford undergraduates. Students should consult their department or program's student services office for applicability of Overseas Studies courses to a major or minor program.

The Bing Overseas Studies course search site (https://undergrad.stanford.edu/programs/bosp/explore/search-courses) displays courses, locations, and quarters relevant to specific majors.

For course descriptions and additional offerings, see the listings in the Stanford Bulletin's ExploreCourses (http://explorecourses.stanford.edu) or Bing Overseas Studies (http://bosp.stanford.edu).

Courses

EDUC 11SC. Work and Family. 2 Units.
Examination into the forces behind the rise in women's paid work and subsequent changes in the workplace and in families. Topics include gendered division of labor, decisions about marriage and childrearing, economic issues, employers' role in structuring work and family, and public policy issues such as anti-discrimination laws, divorce laws, and subsidized child care.

EDUC 12SC. Hip Hop as a Universal Language. 2 Units.
This seminar-cipher considers the prospect of Hip Hop as a Universal Language. Hip Hop Culture has captured the minds of youth "all around the world, from Japan to Amsterdam" (like the homie Kurupt says), shaping youth identities, styles, attitudes, languages, fashions, and both physical and political stances. The field of global Hip Hop studies has emerged as scholars around the world grapple with what is arguably the most profound cultural, musical, and linguistic youth movement of the early 21st century. nParticipants in this seminar-cipher will be engaged in critical discussions around a particular constellation of concerns: Hip Hop Cultures, youth identities, the politics of language, race, and ethnicity, and the simultaneous processes of globalization and localization. Through the examination of various texts (scholarly readings, documentary films, guest speakers and artists), we span the Global Hip Hop Nation through scenes as diverse as Hong Kong's urban center, Germany's Mannheim inner-city district of Weststadt, the Brazilian favelas, the streets of Lagos and Dar es Salaam, and the hoods of the San Francisco Bay Area to explore Hip Hop's global linguistic flows.
EDUC 13SC. Language, Identity, and the Power of Public Discourse. 2 Units.
Have you ever engaged in a conversation with someone who sounds different than you expect? This course explores instances like those that highlight the interaction between language and identity and its implications for learning. The theme of language and identity emerges as significant because of the subtle yet powerful impact it has on our cultural interactions. We have an inherent expectation of how we expect people to communicate. Yet, do these expectations interfere with teaching and learning practices? Many individuals take seminars and classes that focus on teaching professional modes of communication and discourse. This course will offer a detailed examination of scholarship that investigates the power of the subtle messages embedded in language. In addition, to gain a sense of the power of these interactions in practice, we will engage in the following research activities: (a) Participants will engage in school site visits to examine these interactions in practice; (b) Participants will engage in critical interviews of broadcasters at a local television station to discuss the role of language and identity in their presentation; and (c) We will visit a recording studio to discuss the role of language and identity with local hip-hop producers and artists.

EDUC 14SC. Public Education and Schooling: The Great Equalizer or the Fiercely Competitive Field?. 2 Units.
Everyone seems to have an opinion about the American educational landscape. After all, we all have attended schools of various sorts, which help to shape our understandings about education. Yet, the political, social, and cultural terrains are ever-changing, especially within public education. This seminar will focus on some of the main current issues in U.S. urban schools. This course will take an interdisciplinary approach to examining major issues facing public schools today and to discussing effective policies and practices. There are two main components to the seminar: first, students will engage in a review of current educational research and policy; and second, they will conduct some service learning activity in a local, low-income public high school. In small groups, students will co-design projects that both draw on ideas generated from their readings and discussions and involve local high school students and educators. Through various lenses, we will survey the landscape of urban education in the United States and explore myriad theories or explanations for existing conditions, crises, and policies. Students will read a number of works that focus on the multiple environs of the educational system: the economy, the political context, the demands of accountability and standardization, residential patterns, and social and cultural relationships. Such explanations and issues may transcend U.S. boundaries and could be applicable in multiple contemporary urban education settings.

This course-series brings together leading scholars with critically-acclaimed artists, local teachers, youth, and community organizations to consider the complex relationships between culture, knowledge, pedagogy and social justice. Participants will examine the cultural meaning of knowledge as "the 5th element" of Hip Hop Culture (in addition to MCing, DJing, graffiti, and dance) and how educators and cultural workers have leveraged this knowledge for social justice. Overall, participants will gain a strong theoretical knowledge of culturally relevant and culturally sustaining pedagogies and learn to apply this knowledge by engaging with guest artists, teachers, youth, and community youth arts organizations.
Same as: AFRICAAM 32, AMSTUD 32, CSRE 32A, EDUC 432X, TAPS 32

EDUC 98X. Service Learning Practicum. 1 Unit.
For Alternative Spring Break program leaders. The skills and philosophical framework to develop and lead an ASB experience.

EDUC 100A, EAST House Seminar: Current Issues and Debates in Education. 1 Unit.
Education and Society Theme (EAST) House seminar. In autumn quarter, faculty and other scholars from around the University discuss the latest issues, debates, and research in the field of Education. In winter quarter, research and practice pertaining to sex, gender, and education are presented by professionals and scholars. In the spring, the seminar revolves around race, ethnicity, and higher education with a particular emphasis on Asian American issues. Through an examination of these topics, students are able to share and develop their varied interests in educational research, policy, and practice. mnNotes: Attendance at first class required. Seminar meets in the EAST House Dining Hall located at 554 Governor's Ave. The seminar is open to all students at Stanford with first-priority given to pre-assign residents of EAST House followed by other residents of EAST and all other undergraduates. Graduate students are allowed to enroll on a space-available basis. Visitors/auditors are not allowed. The seminar is required for all pre-assigned residents of EAST House and is repeatable for credit.

EDUC 100B, EAST House Seminar: Current Issues and Debates in Education. 1 Unit.
Education and Society Theme (EAST) House seminar. In autumn quarter, faculty and other scholars from around the University discuss the latest issues, debates, and research in the field of Education. In winter quarter, research and practice pertaining to sex, gender, and education are presented by professionals and scholars. In the spring, the seminar revolves around race, ethnicity, and higher education with a particular emphasis on Asian American issues. Through an examination of these topics, students are able to share and develop their varied interests in educational research, policy, and practice. mnNotes: Attendance at first class required. Seminar meets in the EAST House Dining Hall located at 554 Governor's Ave. The seminar is open to all students at Stanford with first-priority given to pre-assign residents of EAST House followed by other residents of EAST and all other undergraduates. Graduate students are allowed to enroll on a space-available basis. Visitors/auditors are not allowed. The seminar is required for all pre-assigned residents of EAST House and is repeatable for credit. Same as: FEMGEN 107B

EDUC 100C, EAST House Seminar: Current Issues and Debates in Education. 1-2 Unit.
"This is Water:” An Inquiry into the Culture at Stanford and Your Personal Values. In a commencement address at Kenyon College, David Foster Wallace shares the following story: "There are these two young fish swimming along, and they happen to meet an older fish swimming the other way, who nods at them and says, ‘Morning, boys. How’s the water?’ And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes, ‘What the hell is water?’” Wallace goes on to say that “the most obvious, important realities are often the ones that are hardest to see and talk about.” In this class, we will explore the water that we are swimming in everyday: the culture at Stanford and our personal values. The two may be in resonance or in tension. Through a variety of readings and ethnographic activities, such as making observations and collecting cultural artifacts, we will become ethnographers of our own institution. We will supplement this inquiry with a personal archeology: digging out our own personal set of values and examining how they connect or conflict with “mainstream” culture at Stanford. This will involve a suite of practices that may prove useful in your everyday life: mindfulness practices, self-reflection prompts, and partner exercises all designed to help you access and articulate your personal values. Notes: Attendance at first class required. Seminar meets in the EAST House Dining Hall located at 554 Governor’s Ave. The seminar is open to all students at Stanford with first-priority given to pre-assign residents of EAST House followed by other residents of EAST and all other undergraduates. Graduate students are allowed to enroll on a space-available basis. Visitors/auditors are not allowed. The seminar is required for all pre-assigned residents of EAST House and is repeatable for credit.
EDUC 101. Introduction to Teaching and Learning. 4 Units.
This course is designed to help undergraduates explore career interests in education; it is the core course for the Undergraduate Minor in Education, and fulfills requirements for Honors in Education. The course considers the philosophy, history, politics, professional practice and social structures of teaching in the United States. Students will read and discuss teaching theory and research, participate in learning activities and visit school teaching sites, as well as examine and analyze artifacts and models of teaching.

EDUC 102. Examining Social Structures, Power, and Educational Access. 2-3 Units.
Goal is to prepare Education and Youth Development fellows for their work with adolescents in the Haas Center’s pre-college summer programs and to define their role in addressing educational inequities in the summer programs and beyond.

EDUC 103A. Tutoring: Seeing a Child through Literacy. 3-4 Units.
Experience tutoring grade school readers in a low income community near Stanford under supervision. Training in tutoring; the role of instruction in developing literacy; challenges facing low income students and those whose first language is not English. How to see school and print through the eyes of a child. Ravenswood Reads tutors encouraged to enroll. Service Learning Course (certified by Haas Center). May be repeated for credit.
Same as: EDUC 203A

EDUC 103B. Race, Ethnicity, and Linguistic Diversity in Classrooms: Sociocultural Theory and Practices. 3-5 Units.
Focus is on classrooms with students from diverse racial, ethnic and linguistic backgrounds. Studies, writing, and media representation of urban and diverse school settings; implications for transforming teaching and learning. Issues related to developing teachers with attitudes, dispositions, and skills necessary to teach diverse students.
Same as: AFRICAAM 106, CSRE 103B, EDUC 337

EDUC 105X. Introduction to Education Research for Undergraduates. 3 Units.
EDUC 105X explores types and purposes and products of education research. Broadly, this seminar course is designed to support Stanford undergraduates in exploring academic and career interests in education; specifically, this course satisfies requirements for the Education Minor, and supports students considering application to the Education Honors Program. In this course we consider what defines education research, and what factors make for quality research. Each week we will read current research by School of Education scholars and welcome the researcher-authors as guest speakers to the class. Students will identify an education topic of interest and write an educational literature review to that topic.

EDUC 106. Interactive Media in Education. 3-5 Units.
Workshop.

EDUC 109X. Educational Issues in Contemporary China. 3-4 Units.
Reforms such as the decentralization of school finance, emergence of private schools, expansion of higher education, and reframing of educational policy to focus on issues of quality. Have these reforms exacerbated educational inequality.
Same as: EDUC 309X

EDUC 110. Sociology of Education: The Social Organization of Schools. 4 Units.
Seminar. Key sociological theories and empirical studies of the links between education and its role in modern society, focusing on frameworks that deal with sources of educational change, the organizational context of schooling, the impact of schooling on social stratification, and the relationships between the educational system and other social institutions such as families, neighborhoods, and the economy.
Same as: EDUC 310, SOC 132, SOC 332

EDUC 111. The Young Adult Novel: A Literature For and About Adolescents. 4 Units.
For undergraduates considering teaching or working with adolescents, and for those planning to apply to the coterminal program in the Stanford Teacher Education program (STEP). Students work together to define the genre of young adult novels. What they reveal about adolescence in America. How to read and teach young adult literature.

EDUC 112X. Urban Education. 3-4 Units.
(Graduate students register for EDUC 212X or SOC 229X). Combination of social science and historical perspectives trace the major developments, contexts, tensions, challenges, and policy issues of urban education.
Same as: AFRICAAM 112, CSRE 112X, EDUC 212X, SOC 129X, SOC 229X

EDUC 113X. Gender and Sexuality in Schools. 1-3 Unit.
Issues at the intersection of queer theory and educational practice. Experiences, rights, and responsibilities of lesbian, gay, bisexual, transgender, intersex, queer, and questioning students and teachers as members of marginalized or majority cultures.

EDUC 114N. Growing Up Bilingual. 3 Units.
What is the impact of mathematics education in the United States? Why do so many people hate and fear math? What contributes to the high levels of innumeracy in the general population? Why do girls and women opt out of math when they get a chance? In this seminar we will consider seminal research on math learning in K-12 classrooms, including a focus on equity. We will spend time investigating cases of teaching and learning, through watching videos and visiting schools. This seminar is for those who are interested in education, and who would like to learn about ways to help students (and maybe yourselves?) learn and enjoy mathematics. If you have had bad math experiences and would like to understand them, and put them behind you, this seminar will be particularly good for you. The final project for this class will involve developing a case of one or more math learners, investigating their journeys in the world of math.

EDUC 115N. How to Learn Mathematics. 3 Units.

EDUC 116N. Howard Zinn and the Quest for Historical Truth. 3 Units.
With more than two million copies in print, Howard Zinn’s A People’s History is a cultural icon. We will use Zinn’s book to probe how we determine what was true in the past. A People’s History will be our point of departure, but our journey will visit a variety of historical trouble spots: debates about whether the US was founded as a Christian nation, Holocaust denial, and the “Birther” controversy of President Obama.
Same as: HISTORY 116N

EDUC 116X. Service Learning as an Approach to Teaching. 3 Units.
History, theory, and practice. Topics include: responsive community partnerships, cultural awareness, the role of reflection, and best practices in service learning.

EDUC 117. Research and Policy on Postsecondary Access. 3 Units.
The transition from high school to college. K-16 course focusing on high school preparation, college choice, remediation, pathways to college, and first-year adjustment. The role of educational policy in postsecondary access. Service Learning Course (certified by Haas Center).
Same as: EDUC 417
EDUC 118S. Designing Your Stanford. 2 Units.
DYS uses a Design Thinking approach to help Freshmen and Sophomores learn practical tools and ideas to make the most of their Stanford experience. Topics include the purpose of college, major selection, educational wayfinding, and innovating college outcomes - all applied through an introduction to Design Thinking. This seminar class incorporates small group discussion, in-class activities, field exercises, personal reflection, and individual coaching. Admission to be confirmed by email to Axess registered students prior to first class session. More information at www.designingyourstanford.org.
Same as: ME 104S

EDUC 120C. Education and Society. 4-5 Units.
The effects of schools and schooling on individuals, the stratification system, and society. Education as socializing individuals and as legitimizing social institutions. The social and individual factors affecting the expansion of schooling, individual educational attainment, and the organizational structure of schooling.
Same as: EDUC 220C, SOC 130, SOC 230

EDUC 121X. Hip Hop, Youth Identities, and the Politics of Language. 3-4 Units.
Focus is on issues of language, identity, and globalization, with a focus on Hip Hop cultures and the verbal virtuosity within the Hip Hop nation. Beginning with the U.S., a broad, comparative perspective in exploring youth identities and the politics of language in what is now a global Hip Hop movement. Readings draw from the interdisciplinary literature on Hip Hop cultures with a focus on sociolinguistics and youth culture.
Same as: AFRICAAM 121X, AMSTUD 121X, ANTHRO 121A, CSRE 121X, LINGUIST 155

EDUC 123X. Community-based Research As Tool for Social Change:Discourses of Equity in Communities & Classrooms. 3-5 Units.
Issues and strategies for studying oral and written discourse as a means for understanding classrooms, students, and teachers, and teaching and learning in educational contexts. The forms and functions of oral and written language in the classroom, emphasizing teacher-student and peer interaction, and student-produced texts. Individual projects utilize discourse analytic techniques. Prerequisite: graduate status or consent of instructor.
Same as: AFRICAAM 130, CSRE 130, EDUC 322

EDUC 126A. Introduction to Public Service Leadership. 1-2 Unit.
Offered through the Haas Center for Public Service. A foundation and vision for a future of public service leadership. Students identify personal values and assess strengths as leaders. The ethics of public service and leadership theory.

EDUC 126B. Public Service Leadership Program Practicum. 1 Unit.
This course is for students in the Public Service Leadership Program offered through the Haas Center for Public Service. The PSLP Practicum provides an opportunity for PSLP students to reflect on their own leadership experiences and to learn from each other's leadership experiences while continuing to build a community of peer service leaders. The PSLP Practicum will meet every other week throughout the quarter.

EDUC 127X. The Wellbeing of Children in Immigrant Families. 2 Units.
This course will examine the many factors that affect the social, educational, and medical wellbeing of children in immigrant families. It will do so through a case study of the immigrant children who currently live in the Buena Vista Mobile Home Park in Palo Alto. The course will approach this issue from a Service-Learning perspective, and will be a collaboration between faculty and students from Stanford and the leaders of the Buena Vista residents association. The course will meet once a week for 90 minutes during the winter quarter. In addition, each student will spend 3-4 hours per week meeting with residents of the Buena Vista Mobile Home Park. To the extent possible, and with parents' knowledge and permission, students will interact with and get to know the children who live in the park, with a focus on children in school grades 6-12.

EDUC 128X. Professional and Leadership Development for Frosh. 1-2 Unit.
As frosh often have difficulty finding relevant job/internships at this early stage in their education, this course represents a more thorough and direct approach to professional and leadership development. As a small cohort within Stern Hall, we will begin early discussion of career interests and exploration, develop an understanding of individual leadership styles, and garner professional leadership skill sets relevant to myriad sectors and resources to aid in this process. Final projects will work toward off site visits during spring break to explore these sectors hands-on and discuss content learned in class with key industry leaders.

EDUC 130. Introduction to Counseling. 3 Units.
The goal of counseling is to help others to create more satisfying lives for themselves. Clients learn to create and capitalize on unexpected events to open up new opportunities. The success of counseling is judged, not by the words and actions of the counselor, but by the progress that the client makes in the real world after counseling itself is ended. Students are encouraged to exercise their full efforts within reasonable time limits to improve their competence.
Same as: PSYCH 148

EDUC 131. Mediation for Dispute Resolution. 3 Units.
Mediation as more effective and less expensive than other forms of settling disputes such as violence, lawsuits, or arbitration. How mediation can be structured to maximize the chances for success. Simulated mediation sessions.
Same as: PSYCH 152

EDUC 132N. Religion, Music and Identity. 3 Units.
Music is one of the most powerful artistic media in American culture. From coffee shops to shopping malls, it plays a crucial role in creating both common experiences and individual conceptions of self. Yet, music also has this powerful ability to seemingly transcend particular people, moments, or places. What is it about music that can so strongly anchor us to our own experiences, and paradoxically shake us loose from our everyday lives? How do the music of religious and wake us from our everyday lives? Lots of people have stories about music that evidences both of these tendencies. But nowhere else are these two, seemingly opposing qualities on display than in the music of religious communities. Whether we are talking about Gregorian chant, contemporary Christian worship music, Jewish cantillation of Sufi qawwali, music and musical style play a central role in the experience of ritual and in shaping how people understand themselves in relation to it. But what is it about music that fuels that experience? Does music have to be "religious" to do that kind of cultural work? Can you have a "religious" experience in a "secular" setting? The answer might depend on your relationship to the music you are hearing or playing. In this seminar, we are going to explore these questions by attending first and foremost to the sounds of religious life. We are going to begin by listening, and expand our understandings through readings and ethnographic fieldwork. Each of these modes of exploration will provide us with greater insight into the role that music plays in shaping religious experience and, in turn, how people understand themselves in relationship to both religion and music.

EDUC 133N. The Role of Language in Education and Society. 3 Units.
The goal of this course is to explore the various issues affecting educational policy and classroom practice in multilingual, multicultural settings. In this class we will examine US and international cases to illustrate more general concerns relating to learners' bilingual/multilingual development in formal educational settings. We begin at the macro level, looking at policy contexts and program structures, and move to the micro level to consider teaching and learning in the multilingual classroom. Throughout, we consider how discourses and identities are interwoven in multilingual education policy and practice. We will also consider the role of communities in implementing change in schools.

EDUC 134. Career and Personal Counseling. 3 Units.
Theories and methods for helping people create more satisfying lives for themselves. Simulated counseling experiences.
Same as: EDUC 234, PSYCH 192
EDUC 135X. Designing Research-Based Interventions to Solve Global Health Problems. 3-4 Units.
The excitement around social innovation and entrepreneurship has spawned numerous startups focused on tackling world problems, particularly in the fields of education and health. The best social ventures are launched with careful consideration paid to research, design, and efficacy. This course offers students insights into understanding how to effectively develop, evaluate, and scale social ventures. Using TeachAIDS (an award-winning nonprofit educational technology social venture used in 78 countries) as a primary case study, students will be given an in-depth look into how the entity was founded and scaled globally. Guest speakers will include world-class experts and entrepreneurs in Philanthropy, Medicine, Communications, Education, and Technology. Open to both undergraduate and graduate students.
Same as: AFRICAST 135, AFRICAST 235, EDUC 335X, HUMBIO 26, MED 235

EDUC 136. World, Societal, and Educational Change: Comparative Perspectives. 4-5 Units.
Theoretical perspectives and empirical studies on the structural and cultural sources of educational expansion and differentiation, and on the cultural and structural consequences of educational institutionalization. Research topics: education and nation building; education, mobility, and equality; education, international organizations, and world culture.
Same as: EDUC 306D, SOC 231

EDUC 136B. Curricular Public Policies for the Recognition of Afro-Brazilians and Indigenous Population. 3-4 Units.
Recently two laws in Brazil (10639/2003 and 13465/2008), which came about due to intense pressure from Black and Indigenous social movements throughout the 20th century, have introduced changes in public education curriculum policies. These new curriculum policies mandate that the study of Afro-Brazilian, African, and Indigenous histories and cultures must be taught at all educational levels including at the elementary, secondary, and post-secondary levels. As part of this mandate, educators are now directed to incorporate considerations of ethnic-racial diversity in relation to people's thinking and experiences. These policies aim to fight racism as well as other forms of discrimination, and moreover, encourage the building of more equitable pedagogies. This course will discuss past and current policies and practices in Brazilian education from the point of view of different social projects organized by Indigenous Peoples, Afro-Brazilians, Asian-Brazilians, as well as Euro-Brazilians. It will also focus on Latin American efforts to promote equity in education, as well as to articulate different points of view, and reinforce and build epistemologies that support the decolonization of thinking, behaviors, research and policies. As part of this process, the course will study the experiences of people demanding these new public policies in terms of the extent to which they were able to influence institutional structures and to establish particular policy reforms. The course will also analyze theoretical frameworks employed by opponents of these movements to resist policies that might challenge their privileged place in society. In doing this, the course will offer theoretical and methodological avenues to promote research that can counter hegemonic curricular policies and pedagogical practices. The course will be fully participatory and oriented towards generating ongoing conversations and discussion about the various issues that arose in Brazil in relation to these two recent laws. To meet these goals, we will do a close reading of relevant scholarly works, paying particular attention to their theoretical frameworks, research designs, and findings.
Same as: AFRAICAM 126B, CSRE 126B, EDUC 236B, PUBLPOL 126B

EDUC 139X. Educating Young STEM Thinkers. 3-5 Units.
The course will introduce students to the design thinking process, the national conversations about the future of STEM careers, and provide opportunities to work with middle school students and K-12 teachers in STEM-based after-school activities and intercession camps. The course will be both theory and practice focused. The purpose is twofold: to provide reflection and mentoring opportunities for students to learn about pathways to STEM careers and to introduce mentoring opportunities with young STEM thinkers.
Same as: EDUC 239X, ME 139, ME 231

EDUC 140. Honors Research. 1-5 Unit.
Provides opportunity for research in pursuit of senior honors theses.

EDUC 145. Writing Across Languages and Cultures: Research in Writing and Writing Instruction. 3-5 Units.
Theoretical perspectives that have dominated the literature on writing research. Reports, articles, and chapters on writing research, theory, and instruction; current and historical perspectives in writing research and research findings relating to teaching and learning in this area.
Same as: CSRE 243, EDUC 243

EDUC 146X. Perspectives on the Education of Linguistic Minorities. 3-4 Units.
Social, political, linguistic, and pedagogical issues associated with educating students who do not speak the language or language variety of the majority society. Focus is on the U.S.; attention to minorities elsewhere. American attitudes toward linguistic and racial minorities. Educational problems of linguistically different children and non-English- or limited-English-speaking children. Approaches to solving problems.

EDUC 148X. Critical Perspectives on Teaching and Tutoring English Language Learners. 3 Units.
Theoretical foundation for volunteer tutors of English language learners in urban environments working with children in school-based programs or adults in community-based settings.

EDUC 149. Theory and Issues in the Study of Bilingualism. 3-5 Units.
Sociolinguistic perspective. Emphasis is on typologies of bilingualism, the acquisition of bilingual ability, description and measurement, and the nature of societal bilingualism. Prepares students to work with bilingual students and their families and to carry out research in bilingual settings.
Same as: EDUC 249

EDUC 155X. First Year Reflections Seminar. 1 Unit.
Restricted to first-year undergraduates; limited enrollment. There are two options for how to participate. You can either enroll in three class weekday sessions weeks 4, 5 & 6 or one Saturday section. These times provide a structured time for students to explore their identities, values, and the kind of lives they want to lead. Exercises and discussions led by faculty, staff, and upper-class student co-facilitators. Tuesday sessions will occur on 1/27, 2/3 & 2/10, Wednesday sessions will occur on 1/28, 2/4 & 2/11, Thursday sessions will occur on 1/29, 2/5 & 2/12, Saturday section is on 1/31, 2/7 or 2/14 (Saturday sessions are longer and students only participate in one).

EDUC 157X. Education & Poverty: Research & Solutions. 1 Unit.
This year-long workshop focuses on current research regarding the relationship between poverty, schooling, and educational success. Invited speakers will discuss current research and strategies for improving the educational outcomes of low-income students. Students will read and discuss current research and discuss current strategies for improving education for low-income students. Students may enroll for one quarter at a time or for the entire year.

EDUC 165. History of Higher Education in the U.S. 3-5 Units.
Major periods of evolution, particularly since the mid-19th century. Premise: insights into contemporary higher education can be obtained through its antecedents, particularly regarding issues of governance, mission, access, curriculum, and the changing organization of colleges and universities.
Same as: AMSTUD 165, EDUC 265, HISTORY 158C
EDUC 170X. Preparation for Independent Public Service Projects. 2 Units.
Open only to recipients of the Haas Summer Fellowship, which offers students the opportunity to initiate and carry out an innovative service project in collaboration with a community partner. Goal is to expand upon the work fellows did during the application process with respect to the feasibility and sustainability of their field projects.

EDUC 171. Early Childhood Education Practicum. 2-4 Units.
Restricted to students who participate in a service learning program focused on early math learning. Training for activities in preschool classrooms. Focus is on the teaching of math to young children, but also includes background on issues related to young children’s cognitive, language, and social development; classroom management; cultural diversity; and early childhood education programs. May be repeated for credit.

EDUC 173. Gender and Higher Education: National and International Perspectives. 4 Units.
This course examines the ways in which higher education structures and policies affect females, males, and students in relation to each other and how changes in those structures and policies improve experiences for females and males similarly or differently. Students are expected to gain an understanding of theories and perspectives from the social sciences relevant to an understanding of the role of higher education in relation to structures of gender differentiation and hierarchy. Topics include undergraduate and graduate education; identity and sexuality; gender and science; gender and faculty; and the development of feminist scholarship and pedagogy. Attention is paid to how these issues are experienced by women and men in the United States, including people of color, and by academics throughout the world, and how these have changed over time.
Same as: EDUC 273, FEMST 173, SOC 173, SOC 273

EDUC 176X. The Design of Technologies for Casual Learning - Lab. 1 Unit.
Lab. Studio-based, participatory, and user-centered development of casual learning technologies is explored, using the Apple iPhone as a prototype platform. The term "casual" is borrowed from casual gaming to denote that the learning technologies are meant for learners to use in "extreme informal" learning circumstances (while "on the go", "any time and any place"). The class builds on learning about and synthesizing knowledge, theory and development activity in four areas including learning theories, mobile technologies, games and participatory design processes.

EDUC 177A. Well-Being in Immigrant Children & Youth: A Service Learning Course. 3 Units.
This is an interdisciplinary course that will examine the dramatic demographic changes in American society that are challenging the institutions of our country, from health care and education to business and politics. This demographic transformation is occurring first in children and youth, and understanding how social institutions are responding to the needs of immigrant children and youth to support their well-being is the goal of this course.
Same as: CHILATST 177A, CSRE 177E, HUMBIO 29A

EDUC 177B. Well-Being in Immigrant Children & Youth: A Service Learning Course. 1-3 Unit.
This is an interdisciplinary course that will examine the dramatic demographic changes in American society that are challenging the institutions of our country, from health care and education to business and politics. This demographic transformation is occurring first in children and youth, and understanding how social institutions are responding to the needs of immigrant children and youth to support their well-being is the goal of this course.
Same as: CHILATST 177B, CSRE 177F

EDUC 177C. Well-Being in Immigrant Children & Youth: A Service Learning Course. 1-3 Unit.
This is an interdisciplinary course that will examine the dramatic demographic changes in American society that are challenging the institutions of our country, from health care and education to business and politics. This demographic transformation is occurring first in children and youth, and understanding how social institutions are responding to the needs of immigrant children and youth to support their well-being is the goal of this course.
Same as: CHILATST 177C, CSRE 177G

EDUC 178X. Latino Families, Languages, and Schools. 3-5 Units.
The challenges facing schools to establish school-family partnerships with newly arrived Latino immigrant parents. How language acts as a barrier to home-school communication and parent participation. Current models of parent-school collaboration and the ideology of parental involvement in schooling.
Same as: EDUC 270

EDUC 180. Directed Reading in Education. 1-15 Unit.
For undergraduates and master's degree students. (All Areas).

EDUC 180S. Pre-field Course for Alternative Spring Break. 1 Unit.
Limited to students participating in the Alternative Spring Break program. See http://asb.stanford.edu for more inform.

EDUC 181. Multicultural Issues in Higher Education. 4 Units.
The primary social, educational, and political issues that have surfaced in American higher education due to the rapid demographic changes occurring since the early 80s. Research efforts and the policy debates include multicultural communities, the campus racial climate, and student development; affirmative action in college admissions; multiculturalism and the curriculum; and multiculturalism and scholarship.
Same as: EDUC 381

EDUC 183X. Practicum in English-Spanish School & Community Interpreting. 3-4 Units.
This practicum will assist students in developing a set of skills in English-Spanish interpreting that will prepare them to provide interpretation services in school and community settings. The course will build students' abilities to transfer intended meanings between two or more monolingual individuals of who are physically present in a school or community setting and who must communicate with each other for professional (and personal) purposes.
Same as: CHILATST 183X, EDUC 283X

EDUC 185. Master's Thesis. 1-15 Unit.
(All areas).

EDUC 187X. Math Mentoring: Working in the Zone with Learners. 1-2 Unit.
The course focuses on how the tutorial relationship can help students learn mathematics. The course will provide background theory and knowledge as well as provide practical approaches to tutoring, supports for targeting activities to students' needs, selection of materials and activities, and ways to assess the progress of the students and reflect on your own experience. Topics will include social theories of learning, teaching for understanding, and challenges of students who are English language learners. In addition to attending 4, two-hour workshop classes, 1 hour of tutoring is required each week. The course will meet 4 times during the quarter for workshops and discussions following Friday tutoring sessions. Students will submit assignments on the Coursework site on weeks that the course does not meet. A 1 unit section of the course will run in Winter and Spring quarters.
Same as: EDUC 397X
EDUC 189X. Language and Minority Rights. 3 Units.
Language as it is implicated in migration and globalization. The effects of globalization processes on languages, the complexity of language use in migrant and indigenous minority contexts, the connectedness of today's societies brought about by the development of communication technologies. Individual and societal multilingualism; preservation and revival of endangered languages.
Same as: CHILATST 189W, CSRE 189W

EDUC 190. Directed Research in Education. 1-15 Units.
For undergraduates and master's students. May be repeated for credit. (all areas).

EDUC 191X. Introduction to Survey Research. 3-4 Units.
Planning tasks, including problem formulation, study design, questionnaire and interview design, pretesting, sampling, interviewer training, and field management. Epistemological and ethical perspectives. Issues of design, refinement, and ethics in research that crosses boundaries of nationality, class, gender, language, and ethnicity.
Same as: EDUC 291X

EDUC 192A. Interpersonal Learning & Leadership: An Introduction to the RA Role. 2 Units.
Preparing students for roles as Resident and Community Assistants, "Intelligent Leadership" explores research on college student development, leadership and the complex dynamics of our changing society both within and outside the college environment. Participants will engage in course work that builds skills relevant to their positions and allow students to implement these skills in a real world environment. Through reflection, self-examination and engagement in interpersonal dynamics and analysis, students will examine how their peer group develops while at the university.

EDUC 192B. Interpersonal Learning & Leadership - Row Staff Class. 2 Units.
"Interpersonal Learning & Leadership - Row Staff Class" explores research on leadership and the complex dynamics of our changing society. Participants will engage in course work intended to build skills relevant to being on a Row Staff team. Students will practice self reflection, risk taking, facilitating, decision-making and group leadership. Students will develop strategies to build community and facilitate challenging conversations while creating a safe environment for their peers to do the same.

EDUC 193A. Listen Up! Core Peer Counseling Skills. 2 Units.
Topics: verbal and non-verbal skills, open and closed questions, paraphrasing, working with feelings, summarization, and integration. Individual training, group exercises, role play practice with optional video feedback. Sections on relevance to crisis counseling and student life. Guest speakers from University and community agencies. Students develop and apply skills in University settings.

EDUC 193B. Peer Counseling in the Chicano/Latino Community. 1 Unit.
Topics: verbal and non-verbal attending and communication skills, open and closed questions, working with feelings, summarization, and integration. Salient counseling issues including Spanish-English code switching in communication, the role of ethnic identity in self-understanding, the relationship of culture to personal development, and Chicana/o student experience in University settings. Individual training, group exercises, role play, and videotape practice.

EDUC 193C. Psychological Well-Being On Campus: Perspectives Of The Black Diaspora. 1 Unit.
Topics: the concept of culture, Black cultural attributes and their effect on reactions to counseling, verbal and non-verbal attending, open and closed questions, working with feelings, summarization, and integration. Reading assignments, guest speakers, role play, and videotaped practice. Students develop and apply skills in the Black community on campus or in other settings that the student chooses.

EDUC 193F. Psychological Well-Being on Campus: Asian American Perspectives. 1 Unit.
Topics: the Asian family structure, and concepts of identity, ethnicity, culture, and racism in terms of their impact on individual development and the counseling process. Emphasis is on empathic understanding of Asians in America. Group exercises.
Same as: ASNAST 193F

EDUC 193G. Psychological Well-Being on Campus: A Focus on Gender and Sexual Identities. 1 Unit.
This course examines mental health and psychological well-being across the spectrum of gender and sexual identities. It addresses the unique challenges that face LGBTQ-identified students, and provides tools for supporting peers as they navigate these challenges. Discussion topics include current conceptualizations of gender identity and sexual orientation, including sexual and gender fluidity; the intersection of queer identities with multiple identities such as ethnic/racial identity and faith/spirituality; unpacking stereotypes; queer relationships and sexuality, coming out and disclosure, and mental health issues.
Same as: FEMGEN 193G

EDUC 193N. Peer Counseling in the Native American Community. 1 Unit.
Verbal and non-verbal communication, strategic use of questions, methods of dealing with strong feelings, and conflict resolution. How elements of counseling apply to Native Americans including client, counselor, and situational variables in counseling, non-verbal communication, the role of ethnic identity in self-understanding, the relationship of culture to personal development, the impact of family on personal development, gender roles, and the experience of Native American students in university settings.
Individual skill development, group exercises, and role practice.

EDUC 193P. Peer Counseling at the Bridge. 1 Unit.
Mental health issues such as relationships, substance abuse, sexual assault, depression, eating disorders, academic stressors, suicide, and grief and bereavement. Guest speakers.

EDUC 193S. Peer Counseling on Comprehensive Sexual Health. 1 Unit.
Information on sexually transmitted infections and diseases, and birth control methods. Topics related to sexual health such as communication, societal attitudes and pressures, pregnancy, abortion, and the range of sexual expression. Role-play and peer-education outreach projects. Required for those wishing to counsel at the Sexual Health Peer Resource Center (SHPRC).

EDUC 196X. The Design of Technologies for Casual Learning. 3 Units.
Studio-based, participatory, and user-centered development of casual/nlearning technologies is explored, using the Apple iPhone as an prototype platform. The term "casual" is borrowed from casual gaming to denote that the learning technologies are meant for learners to use as "extreme informal" learning circumstances (while "on the go", "anytime and any place"). The course builds on learning about and synthesizing knowledge, theory and development activity in four areas including learning theories, mobile technologies, games and participatory design processes.
Same as: EDUC 396X

EDUC 197. Education, Gender, and Development. 4 Units.
Theories and perspectives from the social sciences relevant to the role of education in changing, modifying, or reproducing structures of gender differentiation and hierarchy. Cross-national research on the status of girls and women and the role of development organizations and processes.
Same as: FEMGEN 297, SOC 134

EDUC 199A. Undergraduate Honors Seminar. 3 Units.
Required of juniors and seniors in the honors program in the School of Education. Student involvement and apprenticeships in educational research. Participants share ongoing work on their honors thesis. Prerequisite: consent of instructor. May be repeated for credit once.
EDUC 199B. Undergraduate Honors Seminar. 1 Unit.
Required of juniors and seniors in the honors program in the School of Education. Student involvement and apprenticeships in educational research. Participants share ongoing work on their honors thesis. Prerequisite: consent of instructor. May be repeated for credit once.

EDUC 199C. Undergraduate Honors Seminar. 1 Unit.
Required of juniors and seniors in the honors program in the School of Education. Student involvement and apprenticeships in educational research. Participants share ongoing work on their honors thesis. Prerequisite: consent of instructor. May be repeated for credit once.

EDUC 200A. Introduction to Data Analysis and Interpretation. 4 Units.
Primarily for master's students in the School of Education. Focus is on reading literature and interpreting descriptive and inferential statistics, especially those commonly found in education. Topics: basic research design, instrument reliability and validity, description statistics, correlation, t-tests, one-way analysis of variance, and simple and multiple regression.

EDUC 200B. Introduction to Qualitative Research Methods. 4 Units.
(Formerly EDUC 151.) Primarily for master's students: An introduction to the core concepts and methods of qualitative research. Through a variety of hands-on learning activities, readings, field experiences, class lectures, and discussions, students will explore the processes and products of qualitative inquiry. This is a graduate level course. No undergraduates may enroll. Priority will be given to GSE students, and final enrollment depends on instructor approval after the first day of class.

EDUC 200C. Introduction to Statistical Methods in Education. 3-4 Units.
(Formerly EDUC 160.) Basic techniques in descriptive and inferential statistics for educational research will be covered with an emphasis on rigorous preparation for intermediate and advanced courses. Topics include central tendency, variance, probability, distributions, confidence interval, t-test, F-test, correlation, regression, and analysis of variance. Non-parametric statistics and graphical principles for data representation will also be addressed. Students will also be introduced to STATA in preparation for subsequent higher level courses.

EDUC 201. History of Education in the United States. 3-5 Units.
How education came to its current forms and functions, from the colonial experience to the present. Focus is on the 19th-century invention of the common school system, 20th-century emergence of progressive education reform, and the developments since WW II. The role of gender and race, the development of the high school and university, and school organization, curriculum, and teaching.
Same as: AMSTUD 201, HISTORY 158B

EDUC 202. Introduction to Comparative and International Education. 4-5 Units.
Contemporary theoretical debates about educational change and development, and the international dimension of issues in education. Emphasis is on the development of students' abilities to make cross-national and historical comparisons of educational phenomena.

EDUC 202L. International Education Policy Workshop. 4 Units.
This is a project-based workshop. Practical introduction to issues in educational policy making, education reform, educational planning, implementation of policy interventions, and monitoring and evaluation in developing country contexts. Preference to students enrolled in ICE/IEPA, but open to other students interested in international development or comparative public policy with instructor's consent. Attendance at first class required for enrollment.

EDUC 203. The Anthropology of Education. 3-5 Units.
Learning across situations, organizations, institutions, and cultures. How and when people learn and where, with whom and for what and how answers to these questions change across the lifespan. Schools in relation to other settings in which learning takes place for children, adolescents, and adults. Apprenticeship, mentorship, and learning through observation and imitation.

EDUC 203A. Tutoring: Seeing a Child through Literacy. 3-4 Units.
Experience tutoring grade school readers in a low income community near Stanford under supervision. Training in tutoring; the role of instruction in developing literacy; challenges facing low income students and those whose first language is not English. How to see school and print through the eyes of a child. Ravenswood Reads tutors encouraged to enroll. Service Learning Course (certified by Haas Center). May be repeated for credit.
Same as: EDUC 103A

EDUC 204. Introduction to Philosophy of Education. 3 Units.
How to think philosophically about educational problems. Recent influential scholarship in philosophy of education. No previous study in philosophy required.
Same as: PHIL 231

EDUC 205X. The Impact of Social and Behavioral Science Research on Educational Issues. 3 Units.
Ways in which research intersects with educational policy and practice. Emphasis is on behavioral, social, and cognitive traditions. Topics include early childhood education, early reading, science education, bilingual education, school desegregation, class size reduction, classroom organization, violence and juvenile crime, and affirmative action in higher education. Policy debates and how research informs or fails to inform deliberations and decisions in these areas.

EDUC 206A. Applied Research Methods in International and Comparative Education I: Introduction. 1 Unit.
Required for M.A. students in ICE and IEPA. Orientation to the M.A. program and research project; exploration of resources for study and research.

Required for M.A. students in ICE and IEPA. Development of research skills through theoretical and methodological issues in comparative and international education. Preparation of a research proposal for the M.A. monograph.

EDUC 206C. Applied Research Methods in ICE III: Data Collection and Analysis. 1 Unit.
Required for M.A. students in ICE and IEPA. Practice in data collection and analysis. Preparation of the first draft of the M.A. monograph.

EDUC 206D. Applied Research Methods in International and Comparative Education IV: Master's Paper Workshop. 3 Units.
Conclusion of the M.A. program in ICE and IEPA; required of M.A. students. Reviews of students' research in preparation for their master's monograph.

EDUC 208B. Curriculum Construction. 3-4 Units.
The theories and methods of curriculum development and improvement. Topics: curriculum ideologies, perspectives on design, strategies for diverse learners, and the politics of curriculum construction and implementation. Students develop curriculum plans for use in real settings. Service Learning Course (certified by Haas Center).

EDUC 209A. Policy, Organization, and Leadership Studies Seminar. 1-3 Unit.
This is a required course for all POLS students. The goals of the POLS Seminar (EDUC 209ABC) are to assist students in making the most of their Stanford graduate experience across several dimensions (academic, professional, and social). EDUC 209A is focused on orienting students to the academic and extra-curricular aspects of the experience as quickly as possible, while helping them coalesce as a group and learn how to leverage each other's professional knowledge. Another goal is to help student define their graduate degree goals, so they can plan their year in a very intentional manner that will result in a project or experiences they can highlight during the required Spring quarter POLS Project Forum.
EDUC 209B. Policy, Organization, and Leadership Studies Seminar. 1-3 Unit.
This is a required course for all POLS students. The goals of the POLS Seminar (EDUC 209ABC) are to assist students in making the most of their Stanford graduate experience across several dimensions (academic, professional, and social). EDUC 209B focuses on building career skills and exposing students to a range of education research, policy, and practice and begins helping students conceptualize and frame their Spring POLS Project.

EDUC 209C. Policy, Organization, and Leadership Studies Seminar. 1-3 Unit.
This is a required course for POLS students. The goals of the POLS Seminar (EDUC 209ABC) are to assist students in making the most of their Stanford graduate experience across several dimensions (academic, professional, and social). EDUC 209C focuses on developing the POLS Project for the Spring Forum while continuing to develop career skills and expose students to a range of education research, policy, and practice.

EDUC 210X. Policy, Organization, and Leadership Studies Internship Workshop. 1-3 Unit.
Forum for POLS students to link their academic learning to real world experience through in-class discussions, presentations, and reflective writing. Fall Quarter is focused on understanding the intern's role within the larger organization. Winter Quarter is outward looking with a focus on understanding the broader fields the students' organizations reside within. Spring Quarter focus is on students learning from and being prepared to teach others.

EDUC 211X. Beyond Bits and Atoms - Lab. 1-3 Unit.
This course is a hands-on lab in the prototyping and fabrication of tangible technologies, with a special focus in learning and education. We will learn how to use state-of-the-art fabrication machines (3D printers, 3D scanners, laser cutters, routers) to design educational toolkits, educational toys, science kits, and tangible user interfaces. A special focus of the course will be to design low-cost technologies, particularly for urban school in the US and abroad.
Same as: CS 402L.

EDUC 212X. Urban Education. 3-4 Units.
(Graduate students register for EDUC 212X or SOC 229X). Combination of social science and historical perspectives trace the major developments, contexts, tensions, challenges, and policy issues of urban education.
Same as: AFRICAAM 112, CSRE 112X, EDUC 112X, SOC 129X, SOC 229X

EDUC 213. Introduction to Teaching. 3-4 Units.
Key concepts in teaching and learning; teacher content knowledge and pedagogical content knowledge; student prior knowledge and preconceptions; cognition and metacognition; classroom culture, motivation, and management; teaching diverse populations; comparison of teaching models; analysis of teaching; standards, accountability, and assessment of learning; assessing teaching quality; online learning and teaching.

EDUC 214. Museum Cultures: Material Representation in the Past and Present. 5 Units.
Students will open the iquest;black boxiquest; of museums to consider the past and present roles of institutional collections, culminating in a student-curated exhibition. Today, museums assert their relevance as dynamic spaces for debate and learning. Colonialism and restitution, the politics of representation, human/object relationships, and changing frameworks of authority make museum work widely significant and consistently challenging. Through thinking-in-practice, this course reflexively explores iquest;museum culturesiquest;; representations of iquest;selfiquest; and iquest;otheriquest;; within museums and institutional cultures of the museum world itself.
Same as: AMSTUD 134, ARCHLGY 134, ARCHLGY 234, ARTHIST 284B, CSRE 134, NATIVEAM 134

EDUC 215X. LDT Internship Workshop. 1-3 Unit.
The required internship is a cornerstone of the LDT program. This course will provide students an opportunity to link their academic learning to real world experience through in-class discussions, presentations, and reflective writing. It will allow the program director to monitor the quality of the experience and provide timely advice and support as needed for an optimal learning experience.
The course will meet several times each quarter, adjacent to LDT seminar (Fridays, 12-1). An internship agreement will be required at the beginning of the course signed by the faculty advisor, as well as a reflection paper at the end of the course. Students will take the course for 1 unit, unless they request additional units for unpaid internship hours.

EDUC 216. Education, Race, and Inequality in African American History, 1880-1990. 3-5 Units.
Seminar. The relationship among race, power, inequality, and education from the 1880s to the 1990s. How schools have constructed race, the politics of school desegregation, and ties between education and the late 20th-century urban crisis.
Same as: AFRICAAM 116, CSRE 216X, HISTORY 255E

EDUC 217X. Histories and Futures of Humanistic Education: Culture and Crisis, Books and MOOCs. 5 Units.
Features of online education as they relate to the humanities and notions of engaged critical learning. Collaborative course, working in tandem with Professor Cathy Davidson's Duke course, The History and Future of High Education, using live chats, Google documents, and other forums to interact with students at Duke and other universities nationally. Each campus uses a syllabus linked to each instructor's angle into this general subject, but many readings and exercises in common. Seeing this as a critical moment in education, to connect this topic to its historical, cultural, political, and ethical implications. The Stanford course looks at early discussions about education and culture (Arnold's Culture and Anarchy) and then works through a key moment in the mid-20th century whose premises still have influence: the Two Cultures (humanities, sciences) debate. Radical responses to educational reform in France and the US in the late 60s, and the changing state of funding, value, and cultural critique in the late 20th and early 21st centuries. The idea of education as a personal, collective, and intellectual endeavor which is shaped by and shapes societies. Focus on the idea of the public good and the relation between education and a democratic society.
Same as: COMPLIT 265, DLCL 265

EDUC 218. Topics in Cognition and Learning: Executive Function. 3 Units.
Executive function is a construct that is rapidly taking on an increasingly central role in bringing together current research in cognitive development, learning, education, and neuroscience. In this seminar we will examine the potential cross-fertilization of these fields of inquiry primarily by reviewing research on learning and individual differences in cognitive neuroscience that may hold relevance to education, as well as reviewing educational research that may hold implications for developmental cognitive neuroscience. This seminar course is designed to engage students in recent advances in this rapidly growing research area via discussions of both historical and late-breaking findings in the literature. By drawing on a breadth of studies ranging from cognitive development, cognitive neuroscience, and educational/training studies, students will gain an appreciation for specific ways interdisciplinary approaches can add value to specific programs of research.

EDUC 219E. The Creative Arts in Elementary Classrooms. 1 Unit.
For STEP Elementary only or for candidates in the Multiple Subjects program. Hands-on exploration of visual arts media and works of art.
EDUC 220A. Introduction to the Economics of Education. 4 Units.
The relationship between education and economic analysis. Topics: labor markets for teachers, the economics of child care, the effects of education on earnings and employment, the effects of education on economic growth and distribution of income, and the financing of education. Students who lack training in microeconomics, register for 220Y for 1 additional unit of credit.

EDUC 220B. Introduction to the Politics of Education. 4 Units.
(Same as GSBGEN 349.) The relationships between political analysis and policy formulation in education; focus is on alternative models of the political process, the nature of interest groups, political strategies, community power, the external environment of organizations, and the implementations of policy. Applications to policy analysis, implementation, and politics of reform. (APA).

EDUC 220C. Education and Society. 4-5 Units.
The effects of schools and schooling on individuals, the stratification system, and society. Education as socializing individuals and as legitimizing social institutions. The social and individual factors affecting the expansion of schooling, individual educational attainment, and the organizational structure of schooling.

EDUC 220D. History of School Reform: Origins, Policies, Outcomes, and Explanations. 3-5 Units.
Required for students in the POLS M.A. program; others welcome. Focus is on 20th-century U.S. Intended and unintended patterns in school change; the paradox of reform that schools are often reforming but never seem to change much; rhetorics of reform and factors that inhibit change. Case studies emphasize the American high school. This course is required for POLS students pursuing the PreK-12 concentration.

EDUC 220Y. Introduction to the Economics of Education: Economics Section. 1-2 Unit.
For those taking 220A who have not had microeconomics before or who need a refresher. Corequisite: 220A.

EDUC 221A. Policy Analysis in Education. 4-5 Units.
Major concepts associated with the development, enactment, and execution of educational policy. Issues of policy implementation, agenda setting and problem formulation, politics, and intergovernmental relations. Case studies. Goal is to identify factors that affect how analysts and policy makers learn about and influence education. Limited enrollment. Prerequisite: consent of instructor.

EDUC 222. Resource Allocation in Education. 4-5 Units.
Problems of optimization and design, and evaluation of decision experience. Marginal analysis, educational production functions, cost effectiveness and cost-benefit analysis, constrained maximization, program evaluation. Introduction to linear models for large-scale data analysis. Implications to model assumptions.

EDUC 223. Good Districts and Good Schools: Research, Policy, and Practice. 3-4 Units.
Recent studies of districts and schools that exceed expectations in producing desired results for students. Research methodologies, findings of studies, theories of change in reforming schools and districts and efforts to implement results. Components of good schools and districts. Required project studies a school or district to determine goodness. (SSPEP/APA, CTE).

EDUC 224. Social Entrepreneurship and Social Innovation. 2-4 Units.
(Same as STRAMGT 367.) This course examines individuals and organizations that use entrepreneurial skills and approaches to develop innovative responses to social problems. Entrepreneurship has traditionally been seen as a way of creating wealth for the entrepreneur and for those who back her/his work. Social entrepreneurs employ "entrepreneurial skills," such as finding opportunities, inventing new approaches, securing and focusing resources and managing risk, in the service of creating a social value. As the intensity and complexity of social and environmental problems has grown in recent years social entrepreneurship, defined as innovative, social value creating activity that can occur within or across the nonprofit, government or business sectors, has become increasingly prominent. While virtually all enterprises, commercial and social, generate social value, fundamental to this definition is that the primary focus of social entrepreneurship is to achieve social impact above all else. We will study some of the most promising and the best-proven innovations for improving people's lives. We will also examine mature projects that are now tackling the issue of "scale", moving from local innovations to solutions that create deep systemic changes for larger numbers of economically disadvantaged individuals and communities throughout the world. This year we will focus on what are the constraints and opportunities for creating a social enterprise at scale. The process of "scale" poses tremendous challenges. Even when organizations manage to overcome the many obstacles to growth, and achieve appreciable scale, this approach is seldom sufficient to achieve significant social impact on its own. This year our course will pay particular attention to network approaches which require the mobilization of a vast array of actors and resources, but have the potential to generate rapid and sustained social impact.

EDUC 224A. Social Entrepreneurship and Social Innovation. 3 Units.
(Same as STRAMGT 367.) This course examines individuals and organizations that use entrepreneurial skills and approaches to develop innovative responses to social problems. Entrepreneurship has traditionally been seen as a way of creating wealth for the entrepreneur and for those who back her/his work. Social entrepreneurs employ "entrepreneurial skills", such as finding opportunities, inventing new approaches, securing and focusing resources and managing risk, in the service of creating a social value. As the intensity and complexity of social and environmental problems has grown in recent years social entrepreneurship, defined as innovative, social value creating activity that can occur within or across the nonprofit, government, or business sectors, has become increasingly prominent. While virtually all enterprises, commercial and social, generate social value, fundamental to this definition is that the primary focus of social entrepreneurship is to achieve social impact above all else. We will study some of the most promising and the best-proven innovations for improving people's lives. We will also examine mature projects that are now tackling the issue of "scale", moving from local innovations to solutions that create deep systemic changes for larger numbers of economically disadvantaged individuals and communities throughout the world. This year we will focus on what are the constraints and opportunities for creating a social enterprise at scale. The process of "scale" poses tremendous challenges. Even when organizations manage to overcome the many obstacles to growth, and achieve appreciable scale, this approach is seldom sufficient to achieve significant social impact on its own. This year our course will pay particular attention to network approaches which require the mobilization of a vast array of actors and resources, but have the potential to generate rapid and sustained social impact.
EDUC 224B. Social Entrepreneurship and Social Innovation. 2 Units. (Same as STRAMGT 367). This course examines individuals and organizations that use entrepreneurial skills and approaches to develop innovative responses to social problems. Entrepreneurship has traditionally been seen as a way of creating wealth for the entrepreneur and for those who back her/his work. Social entrepreneurs employ “entrepreneurial skills”, such as finding opportunities, inventing new approaches, securing and focusing resources and managing risk, in the service of creating a social value. As the intensity and complexity of social and environmental problems has grown in recent years social entrepreneurship, defined as innovative, social value creating activity that can occur within or across the nonprofit, government or business sectors, has become increasingly prominent. While virtually all enterprises, commercial and social, generate social value, fundamental to this definition is that the primary focus of social entrepreneurship is to achieve social impact above all else. We will study some of the most promising and the best-proven innovations for improving people’s lives. We will also examine mature projects that are now tackling the issue of “scale”, moving from local innovations to solutions that create deep systemic changes for larger numbers of economically disadvantaged individuals and communities throughout the world. This year we will focus on what are the constraints and opportunities for creating a social enterprise at scale. The process of “scale” poses tremendous challenges. Even when organizations manage to overcome the many obstacles to growth, and achieve appreciable scale, this approach is seldom sufficient to achieve significant social impact on its own. This year our course will pay particular attention to network approaches which require the mobilization of a vast array of actors and resources, but have the potential to generate rapid and sustained social impact.

EDUC 225X. Business Concepts and Skills for the Social Sector. 3 Units. Knowledge and tools for conceiving, building and sustaining successful endeavors in education and the broader social sector. Topics include social, organizational and business strategy, market research, financial analysis, communications, leadership and evaluation. Focus on integrating theory with practical applications. Especially beneficial to students who otherwise may not have exposure to topics taught in a business curriculum.

EDUC 226X. Curating Experience: Representation in and beyond Museums. 2-4 Units. In an age when some 50% of museum visitors only “visit” museums online and when digital technologies have broken open archival access, anyone can be a curator, a critic, an historian, an archivist. In this context, how do museums create experiences that teach visitors about who they are and about the world around them? What are the politics of representation that shape learning in these environments? Using an experimental instructional approach, students will reconsider and redefine what it means to curate experience.

Same as: AMSTUD 226X, CSRE 226X

EDUC 227X. Education Policy in the United States. 3 Units. The course will provide students from different disciplines with an understanding of the broad educational policy context. The course will cover topics including a) school finance systems; b) an overview of policies defining and shaping the sectors and institutional forms of schooling, c) an overview of school governance, d) educational human-resource policy, e) school accountability policies at the federal and state levels; and f) school assignment policies and law, including intra- and inter-district choice policies, desegregation law and policy. This course intended for Master’s students.

Same as: for Master's Students

EDUC 228E. Becoming Literate in School I. 2 Units. First in a three course sequence. Introduction to reading and language arts theory and methodology for candidates STEP Elementary Teacher program. Instructional methods, formats, and materials.

EDUC 228F. Becoming Literate in School II. 2 Units. Second in a three-course required sequence of reading and language arts theory and methodology for candidates in the STEP Elementary program. Theories for guiding instruction and curricular choices.

EDUC 228G. Becoming Literate in School III. 2 Units. Third in a three-course required sequence of reading and language arts theory and methodology for candidates in STEP Elementary Teacher program. Theories for guiding instruction and curricular choices.

EDUC 228H. Literacy, History, and Social Science. 1 Unit. How elementary school teachers can teach history and social science within a literacy framework. Topics include: historical thinking, reading, and writing; current research; applying nonfiction reading and writing strategies to historical texts; using primary sources with elementary students; adapting instruction to meet student needs; state standards; evaluating curriculum; assessing student knowledge; developing history and social science units; and embedding history and social science into the general literacy curriculum.

EDUC 229A. Learning Design and Technology Seminar. 1 Unit. Four-quarter required seminar for the LDT master’s program. Discussions and activities related to designing for learning with technology. Support for internships and Master’s project. Theoretical and practical perspectives, hands-on development, and collaborative efforts. (LDT).

EDUC 229B. Learning Design and Technology Seminar. 1 Unit. Four-quarter required seminar for the LDT master’s program. Discussions and activities related to designing for learning with technology. Support for internships and Master’s project. Theoretical and practical perspectives, hands-on development, and collaborative efforts. (LDT).

EDUC 229C. Learning Design and Technology Seminar. 1 Unit. Four-quarter required seminar for the LDT master’s program. Discussions and activities related to designing for learning with technology. Support for internships and Master’s project. Theoretical and practical perspectives, hands-on development, and collaborative efforts. (LDT).

EDUC 229D. Learning Design and Technology Seminar. 2-5 Units. Four-quarter required seminar for the LDT master’s program. Discussions and activities related to designing for learning with technology. Support for internships and Master’s project. Theoretical and practical perspectives, hands-on development, and collaborative efforts. (LDT).

EDUC 230X. Social Enterprise. 4 Units. (Same as STRAMGT 341.) Approaches for creating social value through a social enterprises including nonprofits, for-profits, and hybrid forms of organization. Perspectives include entrepreneur, CEO, funder, and board member. Topics include undertaking the social entrepreneurship process; mobilizing economic and human resources; achieving social objectives with commercial vehicles; crafting alliances; managing growth; measuring and managing performance; governing for excellence. Case studies. Student teams carry out field-based research in a significant strategic or operational issue of a social enterprise.

EDUC 231X. Knowing God: Learning Religion in Popular Culture. 4 Units. This course will examine how people learn religion outside of school, and in conversation with popular cultural texts and practices. Taking a broad social-constructivist approach to the variety of ways people learn, this course will explore how people assemble ideas about faith, identity, community, and practice, and how those ideas inform individual, communal and global notions of religion. Much of this work takes place in formal educational environments including missionary and parochial schools, Muslim madrasas or Jewish yeshivot. However, even more takes place outside of school, as people develop skills and strategies in conversation with broader social trends. This course takes an interdisciplinary approach to questions that lie at the intersection of religion, popular culture, and education.

Same as: AMSTUD 231X, JEWISHST 291X, RELIGST 231X
EDUC 232. Culture, Learning, and Poverty. 2-3 Units.
This course examines the categories and methods used to analyze and explain educational inequalities in the United States from 1950 to present. Approaches to theories of school failure and methods of intervention are distinguished by their ideas on the play of learning, language, cognition, culture, and social class in human development. Particular attention is given to the Culture of Poverty controversies of the 1960s and their recent emergence.

EDUC 233A. Counseling Theories and Interventions from a Multicultural Perspective. 3-5 Units.
In an era of globalization characterized by widespread migration and cultural contacts, professionals face a unique challenge: How does one practice successfully when working with clients/students from so many different backgrounds? This course focuses upon the need to examine, conceptualize, and work with individuals according to the multiple ways in which they identify themselves. It will systematically examine multicultural counseling concepts, issues, and research. Literature on counselor and client characteristics such as social status or race/ethnicity and their effects on the counseling process and outcome will be reviewed. Issues in consultation with culturally and linguistically diverse parents and students and work with migrant children and their families are but a few of the topics covered in this course.
Same as: AFRICAAM 233A, CSRE 233A

EDUC 233B. Adolescent Development and Mentoring in the Urban Context. 3 Units.
Continuation of 233A. Topics include: developmental psychology and service learning; collaborating with the community; psychological research on altruism and prosocial behavior; volunteers' motivations; attributions about poverty, and the problem of prejudice.

EDUC 234. Career and Personal Counseling. 3 Units.
Theories and methods for helping people create more satisfying lives for themselves. Simulated counseling experiences.
Same as: EDUC 134, PSYCH 192

EDUC 235X. The Creative Arts in Schools and Classrooms. 2 Units.
Students work alongside teachers and performing artists to plan and implement classroom activities with elementary school children to prepare them for a Lively Arts performance. Background theory in education and arts education. Students develop a follow-up classroom activity for children in their own art form.

EDUC 236B. Curricular Public Policies for the Recognition of Afro-Brazilians and Indigenous Population. 3-4 Units.
Recently two laws in Brazil (10639/2003 and 13465/2008), which came about due to intense pressure from Black and Indigenous social movements throughout the 20th century, have introduced changes in public education curriculum policies. These new curriculum policies mandate that the study of Afro-Brazilian, African, and Indigenous histories and cultures must be taught at all educational levels including at the elementary, secondary, and post-secondary levels. As part of this mandate, educators are now directed to incorporate considerations of ethnic-racial diversity in relation to people's thinking and experiences. These policies aim to fight racism as well as other forms of discrimination, and moreover, encourage the building of more equitable pedagogies. This course will discuss past and current policies and practices in Brazilian education from the point of view of different social projects organized by Indigenous Peoples, Afro-Brazilians, Asian-Brazilians, as well as Euro-Brazilians. It will also focus on Latin American efforts to promote equity in education, as well as to articulate different points of view, and reinforce and build epistemologies that support the decolonization of thinking, behaviors, research and policies. As part of this process, the course will study the experiences of people demanding these new public policies in terms of the extent to which they were able to influence institutional structures and to establish particular policy reforms. The course will also analyze theoretical frameworks employed by opponents of these movements to resist policies that might challenge their privileged place in society. In doing this, the course will offer theoretical and methodological avenues to promote research that can counter hegemonic curricular policies and pedagogical practices. The course will be fully participatory and oriented towards generating ongoing conversations and discussion about the various issues that arose in Brazil in relation to these two recent laws. To meet these goals, we will do a close reading of relevant scholarly works, paying particular attention to their theoretical frameworks, research designs, and findings.
Same as: AFRICAAM 126B, CSRE 126B, EDUC 136B, PUBLPOL 126B

EDUC 236X. Beyond Bits and Atoms: Designing Technological Tools. 3-4 Units.
Practicum in designing and building technology-enabled curricula and hands-on learning environments. Students use software toolkits and state-of-the-art fabrication machines to design educational software, educational toolkits, and tangible user interfaces. The course will focus on designing low-cost technologies, particularly for urban school in the US and abroad. We will explore theoretical and design frameworks from the constructionist learning perspective, critical pedagogy, interaction design for children.
Same as: CS 402

EDUC 238X. Teacher Policies in Latin America. 3-5 Units.
We will explore the complex, challenging and often troubled world of teacher policy in Latin America. Education policy is an important instrument of change and the hope of many teachers and students. They affect the lives of many people and therefore their design, implementation and evaluation must have high academic and political rigor. The emphasis of this course is on the design and implementation of teacher policies in Latin America. We will focus on how to use empirical evidence to take into account the impact, feasibility and political complexities of designing and implementing teacher policy in LA.

EDUC 239X. Educating Young STEM Thinkers. 3-5 Units.
The course will introduce students to the design thinking process, the national conversations about the future of STEM careers, and provide opportunities to work with middle school students and K-12 teachers in STEM-based after-school activities and intercession camps. The course will be both theory and practice focused. The purpose is twofold: to provide reflection and mentoring opportunities for students to learn about pathways to STEM careers and to introduce mentoring opportunities with young STEM thinkers.
Same as: EDUC 139X, ME 139, ME 231
EDUC 240. Adolescent Development and Learning. 5 Units.
How do adolescents develop their identities, manage their inner and outer worlds, and learn? Presumptions: that fruitful instruction takes into account the developmental characteristics of learners and the task demands of specific curricula; and that teachers can promote learning and motivation by mediating among the characteristics of students, the curriculum, and the wider social context of the classroom. Prerequisite: STEP student or consent of instructor. (STEP).

EDUC 241S. Organizational Learning. 2 Units.
(Same as OB 586.) How firms learn from their experiences and the opportunities created by flawed learning. Common mistakes in learning and barriers to the adoption of effective practices. How to avoid common mistakes and build organizations that learn more effectively to identify possible opportunities in markets. Concepts and findings from organization theory, psychology, decision theory, and statistics.

EDUC 241X. Organizational Learning. 4 Units.
Why firms do not learn from their experiences and the opportunities created by flawed learning. Common mistakes in learning and barriers to the adoption of effective practices. How to avoid common mistakes and build organizations that learn more effectively to identify possible opportunities in markets. Concepts and findings from organization theory, psychology, decision theory, and statistics. Readings include teaching notes, papers in psychology and organization theory, HBR articles, and Moneyball by Michael Lewis who discusses market-level mistakes in professional baseball.

EDUC 242. Language Use in the Chicano Community. 3-5 Units.
The significance and consequences of language diversity in the culture and society of the U.S. Experiences of non-English background individuals through focus on Spanish-English bilingual communities. Same as: SPANLIT 206

EDUC 243. Writing Across Languages and Cultures: Research in Writing and Writing Instruction. 3-5 Units.
Theoretical perspectives that have dominated the literature on writing research. Reports, articles, and chapters on writing research, theory, and instruction; current and historical perspectives in writing research and research findings relating to teaching and learning in this area. Same as: CSRE 243, EDUC 145

EDUC 244. Classroom Management and Leadership. 2 Units.
Student and teacher roles in developing a classroom community. Strategies for classroom management within a theoretical framework. STEP secondary only.

EDUC 244E. Elementary Classroom Leadership and Management. 1 Unit.
How to best manage a classroom. Student and teacher roles in developing a classroom community. Strategies for classroom management within a theoretical framework. STEP elementary only.

EDUC 244F. Elementary Classroom Leadership and Management. 1 Unit.
Skills for developing a positive classroom learning environment. Theoretical issues and opportunities to acquire strategies and make links with practice teaching class. STEP elementary only.

EDUC 245. Understanding Racial and Ethnic Identity Development. 3-5 Units.
African American, Native American, Mexican American, and Asian American racial and ethnic identity development; the influence of social, political and psychological forces in shaping the experience of people of color in the U.S. The importance of race in relationship to social identity variables including gender, class, and occupational, generational, and regional identifications. Bi- and multiracial identity status, and types of white racial consciousness.
Same as: AFRICAAM 245, CSRE 245

EDUC 246A. Secondary Teaching Seminar. 3 Units.
Preparation and practice in issues and strategies for teaching in classrooms with diverse students. Topics: instruction, curricular planning, classroom interaction processes, portfolio development, teacher professionalism, patterns of school organization, teaching contexts, and government educational policy. Classroom observation and student teaching with accompanying seminars during each quarter of STEP year. 16 units required for completion of the program. Prerequisite: STEP student.

EDUC 246B. Secondary Teaching Seminar. 5 Units.
Preparation and practice in issues and strategies for teaching in classrooms with diverse students. Topics: guided observations, building classroom community, classroom interaction processes, topics in special education portfolio development, teacher professionalism, patterns of school organization, teaching contexts, and government educational policy. Classroom observation and student teaching with accompanying seminars during each quarter of STEP year. 16 units required for completion of the program. Prerequisite: STEP student.

EDUC 246C. Secondary Teaching Seminar. 5 Units.
Preparation and practice in issues and strategies for teaching in classrooms with diverse students. Topics: instruction, curricular planning, classroom interaction processes, portfolio development, teacher professionalism, patterns of school organization, teaching contexts, and government educational policy. Classroom observation and student teaching with accompanying seminars during each quarter of STEP year. 16 units required for completion of the program. Prerequisite: STEP student.

EDUC 246D. Secondary Teaching Seminar. 2-7 Units.
Preparation and practice in issues and strategies for teaching in classrooms with diverse students. Topics: instruction, curricular planning, classroom interaction processes, portfolio development, teacher professionalism, patterns of school organization, teaching contexts, and government educational policy. Classroom observation and student teaching with accompanying seminars during each quarter of STEP year. 16 units required for completion of the program. Prerequisite: STEP student.

EDUC 246E. Elementary Teaching Seminar. 3 Units.
Integrating theory and practice in teacher development. Topics include: equity, democracy, and social justice in the context of teaching and learning; teacher reflection, inquiry, and research; parent/teacher relationships; youth development and community engagement; professional growth and development; teacher leadership and school change processes; preparation for the job search, the STEP Elementary Portfolio, and the STEP Elementary Conference. Prerequisite: STEP student.

EDUC 246F. Elementary Teaching Seminar. 5-7 Units.
Integrating theory and practice in teacher development. Topics include: equity, democracy, and social justice in the context of teaching and learning; teacher reflection, inquiry, and research; parent/teacher relationships; youth development and community engagement; professional growth and development; teacher leadership and school change processes; preparation for the job search, the STEP Elementary Portfolio, and the STEP Elementary Conference. Prerequisite: STEP student.

EDUC 246G. Elementary Teaching Seminar. 3 Units.
Integrating theory and practice in teacher development. Topics include: equity, democracy, and social justice in the context of teaching and learning; teacher reflection, inquiry, and research; parent/teacher relationships; youth development and community engagement; professional growth and development; teacher leadership and school change processes; preparation for the job search, the STEP Elementary Portfolio, and the STEP Elementary Conference. Prerequisite: STEP student.
EDUC 246H. Elementary Teaching Seminar. 4 Units.
Integrating theory and practice in teacher development. Topics include: equity, democracy, and social justice in the context of teaching and learning; teacher reflection, inquiry, and research; parent/teacher relationships; youth development and community engagement; professional growth and development; teacher leadership and school change processes; preparation for the job search, the STEP Elementary Portfolio, and the STEP Elementary Conference. Prerequisite: STEP student.

EDUC 247. Moral and Character Education. 3 Units.
Contemporary scholarship and educational practice related to the development of moral beliefs and conduct in young people. The psychology of moral development; major philosophical, sociological, and anthropological approaches. Topics include: natural capacities for moral awareness in the infant; peer and adult influences on moral growth during childhood and adolescence; extraordinary commitment during adulthood; cultural variation in moral judgment; feminist perspectives on morality; the education movement in today's schools; and contending theories concerning the goals of moral education.

EDUC 248X. Psychology of Pedagogy. 1-3 Unit.
How can methods and insights from psychology inform education practice, particularly in a higher education context? This course aims to develop your skills as critical consumers and producers of empirical findings on teaching and learning. Course involves a quarter-long project to develop a pedagogical research proposal, supplemented and informed by readings, guided discussions, and group workshops. 
Same as: PSYCH 277

EDUC 249. Theory and Issues in the Study of Bilingualism. 3-5 Units.
Sociolinguistic perspective. Emphasis is on typologies of bilingualism, the acquisition of bilingual ability, description and measurement, and the nature of societal bilingualism. Prepares students to work with bilingual students and their families and to carry out research in bilingual settings.
Same as: EDUC 149

EDUC 250B. Statistical Analysis in Education: Regression. 4 Units.
Primarily for doctoral students; part of doctoral research core; prerequisite for advanced statistical methods courses in School of Education. Basic regression, a widely used data-analytic procedure, including multiple and curvilinear regression, regression diagnostics, analysis of residuals and model selection, logistic regression. Proficiency with statistical computer packages.

EDUC 250C. Qualitative Analysis in Education. 4 Units.
Primarily for doctoral students; part of doctoral research core. Methods for collecting and interpreting qualitative data including case study, ethnography, discourse analysis, observation, and interview.

EDUC 253X. Inequality, Society, and Education. 3-5 Units.
The course will focus on developing students' quest; understanding of theory and research on several key issues in the relationship between education and inequality: 1) what are the recent patterns and trends in both economic and educational inequality? 2) what kinds of inequality (from a normative/philosophical perspective) should we worry about? 3) how do we measure educational inequality? 4) how are economic and educational inequality linked? 5) what policies/practices might reduce educational inequality? The course will be a graduate student seminar, with enrollment capped at 20-25. 
Same as: SOC 335X

EDUC 254X. Leadership in Diverse Organizations. 4 Units.
(Same as OB 593) This course is designed to help students improve their capacity to exercise leadership and work effectively with others within the context of culturally diverse groups and organizations. The course is based on the premise that diversity can present unique challenges and opportunities and thereby pushes students to develop crucial leadership skills, many of which are relevant across a variety of situations. The class will address two primary questions: 1) What social and psychological obstacles limit people's ability to work effectively across identity-based differences? 2) What can you do to build the relational and organizational capacity to enable these differences to be a resource for learning and effectiveness within teams and organizations? Students should be prepared to experiment with various conceptual and analytic skills inside and outside of the classroom. While the course focuses on dynamics of race and gender, there will be opportunities for students to explore a variety of other dimensions of identity and difference in organizations, including (but not limited to) sexual orientation, nationality, class, and religion. The course is intended for students who expect to work in culturally diverse groups or organizations and will be equally relevant to those who plan to work in the not-for-profit, public, and for-profit sectors.

EDUC 254X. Leadership in Diverse Organizations. 4 Units.
How improve capacity to exercise leadership and work effectively with others within the context of culturally diverse groups and organizations. Premise is that diversity presents challenges and opportunities that push students to develop leadership skills relevant across a variety of situations. What social and psychological obstacles limit people's ability to work effectively across identity-based differences? What can people do to build the relational and organizational capacity to enable these differences to be a resource for learning and effectiveness within teams and organizations? Focus is on dynamics of race and gender; attention to other dimensions of identity and difference in organizations, including sexual orientation, nationality, class, and religion. 

EDUC 255A. Experimental Research Designs in Educational Research. 3-5 Units.
The course will cover the following topics: a) the logic of causal inference and the Fisher/Neyman/Rubin counterfactual causal model (Fisher, 1935; Heckman, 1979; Holland, 1986; Neyman, 1990; Rubin, 1978); b) randomized experiments; c) complex randomized experiments in education (cluster randomized trials, multi-site trials, staggered implementation via randomization, etc.); d) policy experiments with randomization; e) meta-analysis; and f) power in randomized experiments; g) the ethics and politics of randomized experiments.

EDUC 255B. Causal Inference in Quantitative Educational and Social Science Research. 3-5 Units.
Quantitative methods to make causal inferences in the absence of randomized experiments including the use of natural and quasi-experiments, instrumental variables, regression discontinuity, matching estimators, longitudinal methods, fixed effects estimators, and selection modeling. Assumptions implicit in these approaches, and appropriateness in research situations. Students develop research proposals relying on these methods. Prerequisites: exposure to quantitative research methods; multivariate regression.
Same as: SOC 257

EDUC 255C. Applied Quasi-Experimental Research in Education. 3-5 Units.
Course will provide hands-on practice in analysis of data from experimental and quasi-experimental research designs, including a) instrumental variables estimators; b) regression discontinuity estimators; c) difference-in-difference estimators; d) matching estimators; e) fixed effects estimators; and f) panel data methods (including individual fixed effects models, lagged covariate adjustment models, growth models, etc.). Prerequisites: satisfactory completion of EDUC 255B, EDUC 257C or SOC 257.
Same as: SOC 258
EDUC 256. Psychological and Educational Resilience Among Children and Youth. 4 Units.
Theoretical, methodological, and empirical issues pertaining to the psychological and educational resilience of children and adolescents. Overview of the resilience framework, including current terminology and conceptual and measurement issues. Adaptive systems that enable some children to achieve successful adaptation despite high levels of adversity exposure. How resilience can be studied across multiple levels of analysis, ranging from cell to society. Individual, family, school, and community risk and protective factors that influence children's development and adaptation. Intervention programs designed to foster resilient adaptation in disadvantaged children's populations. Same as: HUMBIO 149

EDUC 257A. Statistical Methods for Behavioral and Social Sciences. 3 Units.
For students with experience in empirical research. Analysis of data from experimental studies through factorial designs, randomized blocks, repeated measures; regression methods through multiple regression, model building, analysis of covariance; categorical data analysis through log-linear models, logistic regression. Integrated with the use of statistical computing packages. Prerequisite: analysis of variance and regression at the level of STATS 161.

EDUC 257B. Statistical Methods for Behavioral and Social Sciences. 3 Units.
For students with experience in empirical research. Analysis of data from experimental studies through factorial designs, randomized blocks, repeated measures; regression methods through multiple regression, model building, analysis of covariance; categorical data analysis through log-linear models, logistic regression. Integrated with the use of statistical computing packages. Prerequisite: analysis of variance and regression at the level of STATS 161.

EDUC 258. Literacy Development and Instruction. 3-5 Units.
Literacy acquisition as a developmental and educational process. Problems that may be encountered as children learn to read. How to disentangle home, community, and school instruction from development.

EDUC 259X. Application of Hierarchical Linear Models in Behavioral and Social Research. 4 Units.
The fundamental phenomenon of interest in educational research is the growth in knowledge and skills of individual students. Two facts - that children's growth is typically the object of inquiry and that such growth occurs in organizational settings - correspond to two of the most troublesome and persistent methodological problems in the social sciences: the measurement of change and the assessment of multi-level effects (also referred to as the unit of analysis problem). Although these two methodological problems have distinct, long-standing, and non-overlapping literatures, these problems, in fact, share a common cause - the inadequacy of traditional statistical techniques for the modeling of hierarchy.

EDUC 260X. Statistical Methods for Group Comparisons and Causal Inference. 3 Units.
Critical examination of statistical methods in social science applications, especially for cause and effect determinations. Topics: path analysis, multilevel models, matching and propensity score methods, analysis of covariance, instrumental variables, compliance, longitudinal data, mediating and moderating variables. See http://web.stanford.edu/~rag/stat209/. Prerequisite: intermediate-level statistical methods. Same as: HRP 239, STATS 209

EDUC 261. Sociocultural Theories of Learning & Development: Vygotsky & Bakhtin. 3 Units.
Grounded in theories of Vygotsky and Bakhtin, this course will review commonly used, but often misunderstood, concepts about how context enters theories of learning and development. Topics will include: distinctions between development and learning; the place of culture in developing higher mental functions; the zone of proximal development, conceptions and misconceptions; contributions of activity theory; importance of heterogeneity and multivocality; and role of language in iquest;ideological becomingquest; or idea development. Focus will be on using theory to guide research.

EDUC 262A. Curriculum and Instruction in English. 2 Units.
Approaches to teaching English in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. (STEP).

EDUC 262B. Curriculum and Instruction in English. 3 Units.
Approaches to teaching English in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. STEP second year.

EDUC 262C. Curriculum and Instruction in English. 3 Units.
Approaches to teaching English in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. (STEP).

EDUC 263A. Curriculum and Instruction in Mathematics. 2 Units.
The purposes and programs of mathematics in the secondary curriculum; teaching materials, methods. Prerequisite: STEP student or consent of instructor. (STEP) 263A. Sum, 263B. Aut, 263C. Win.

EDUC 263B. Curriculum and Instruction in Mathematics. 3 Units.
The purposes and programs of mathematics in the secondary curriculum; teaching materials, methods. Prerequisite: STEP student or consent of instructor. (STEP) 263A. Sum, 263B. Aut, 263C. Win.

EDUC 263C. Curriculum and Instruction in Mathematics. 3 Units.
The purposes and programs of mathematics in the secondary curriculum; teaching materials, methods. Prerequisite: STEP student or consent of instructor. (STEP) 263A. Sum, 263B. Aut, 263C. Win.

EDUC 263E. Quantitative Reasoning in Mathematics I. 2 Units.
First of a three-course sequence in mathematics for STEP elementary teacher candidates. Content, pedagogy, and context. Mathematics subject matter; the orchestration of teaching and learning of elementary mathematics including curriculum, classroom and lesson design, and case studies. Sociocultural and linguistic diversity, equity, differentiation of instruction, the impact of state and national standards, and home/community connections.

EDUC 263F. Quantitative Reasoning in Mathematics II. 2-3 Units.
Second of a three-course sequence in mathematics for STEP elementary teacher candidates. Content, pedagogy, and context. Mathematics subject matter; the orchestration of teaching and learning of elementary mathematics including curriculum, classroom and lesson design, and case studies. Sociocultural and linguistic diversity, equity, differentiation of instruction, the impact of state and national standards, and home/community connections.

EDUC 263G. Quantitative Reasoning in Mathematics III. 2 Units.
Third of a three-course sequence in mathematics for STEP elementary teacher candidates. Content, pedagogy, and context. Mathematics subject matter; the orchestration of teaching and learning of elementary mathematics including curriculum, classroom and lesson design, and case studies. Sociocultural and linguistic diversity, equity, differentiation of instruction, the impact of state and national standards, and home/community connections.

EDUC 264A. Curriculum and Instruction in World Languages. 2 Units.
Approaches to teaching foreign languages in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. Prerequisite: STEP student. (STEP).
EDUC 264B. Curriculum and Instruction in World Languages. 3 Units.
Approaches to teaching foreign languages in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. STEP secondary only.

EDUC 264C. Curriculum and Instruction in World Languages. 3 Units.
Approaches to teaching foreign languages in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. Prerequisite: STEP student. (STEP).

EDUC 264E. Methods and Materials in Bilingual Classrooms. 2 Units.
Restricted to STEP elementary teacher candidates in the BCLAD program. Theories, research, and methods related to instruction of Spanish-English bilingual children, grades K-8. Approaches to dual language instruction, and pedagogical and curricular strategies for the instruction of reading, language arts, science, history, social science, and math in Spanish. Assessment issues and practices with bilingual students. In Spanish.

EDUC 265. History of Higher Education in the U.S., 3-5 Units.
Major periods of evolution, particularly since the mid-19th century. Premise: insights into contemporary higher education can be obtained through its antecedents, particularly regarding issues of governance, mission, access, curriculum, and the changing organization of colleges and universities.
Same as: AMSTUD 165, EDUC 165, HISTORY 158C

EDUC 266X. Educational Neuroscience. 3 Units.
An introduction to the growing intersection between education research and emerging research on functional brain development. Students will probe the contributions and limitations of emerging theoretical and empirical contribution of neuroscience approaches to specific academic skills such as reading and mathematics, as well as exposure to general processes crucial for educational success, including motivation, attention, and social cognition. Final projects will explore these themes in the service of interventions designed to improve how these functions.

EDUC 267A. Curriculum and Instruction in Science. 2 Units.
Possible objectives of secondary science teaching and related methods: selection and organization of content and instructional materials; lab and demonstration techniques; evaluation, tests; curricular changes; ties with other subject areas. Prerequisite: STEP student or consent of instructor. (STEP).

EDUC 267B. Curriculum and Instruction in Science. 3 Units.
Possible objectives of secondary science teaching and related methods: selection and organization of content and instructional materials; lab and demonstration techniques; evaluation, tests; curricular changes; ties with other subject areas. Prerequisite: STEP student or consent of instructor. (STEP).

EDUC 267C. Curriculum and Instruction in Science. 3 Units.
Possible objectives of secondary science teaching and related methods: selection and organization of content and instructional materials; lab and demonstration techniques; evaluation, tests; curricular changes; ties with other subject areas. Prerequisite: STEP student or consent of instructor. (STEP).

EDUC 267E. Development of Scientific Reasoning and Knowledge. 2 Units.
For STEP elementary teacher candidates. Theories and methods of teaching and learning science. How to develop curricula and criteria for critiquing curricula. Students design a science curriculum plan for a real setting. State and national science frameworks and content standards. Alternative teaching approaches; how to select approaches that are compatible with learner experience and lesson objectives. Focus is on the linguistic and cultural diversity of California public school students.

EDUC 267F. Development of Scientific Reasoning and Knowledge II. 2 Units.
Continuation of 267E. Scientific knowledge and pedagogical skills for supporting science instruction. Topics include: how children build scientific understandings and what that understanding might look and sound like in young children; what school science is and how concepts are connected to the doing of it; physical, life, and earth science constructs.

EDUC 267G. Integrating the Garden into the Elementary Curriculum. 1 Unit.
This mini-course uses the garden and kitchen environments to provide teacher candidates with real-world contexts in which to explore some of the key issues that children face in health, nutrition, and sustainability. Teacher candidates will gain an understanding of how to integrate the various themes with content areas and standards and an appreciation for the importance of addressing children’s health needs in an era when the country is facing increased obesity and other health problems.

EDUC 268A. Curriculum and Instruction in History and Social Science. 2 Units.
The methodology of history instruction: teaching for historical thinking and reasoning; linking the goals of teaching history with literacy; curriculum trends; and opportunities to develop teaching and resource units. Prerequisite: STEP student.

EDUC 268B. Curriculum and Instruction in History and Social Science. 3 Units.
The methodology of history instruction: teaching for historical thinking and reasoning; linking the goals of teaching history with literacy; curriculum trends; and opportunities to develop teaching and resource units. Prerequisite: STEP student.

EDUC 268C. Curriculum and Instruction in History and Social Science. 3 Units.
The methodology of history instruction: teaching for historical thinking and reasoning; linking the goals of teaching history with literacy; curriculum trends; and opportunities to develop teaching and resource units. Prerequisite: STEP student.

EDUC 269X. The Ethics in Teaching. 1 Unit.
Goal is to prepare for the ethical problems teachers confront in their professional lives. Skills of ethical reasoning, familiarity with ethical concepts, and how to apply these skills and concepts in the analysis of case studies. Topics: ethical responsibility in teaching, freedom of speech and academic freedom, equality and difference, indoctrination, and the teaching of values.

EDUC 270. Latino Families, Languages, and Schools. 3-5 Units.
The challenges facing schools to establish school-family partnerships with newly arrived Latino immigrant parents. How language acts as a barrier to home-school communication and parent participation. Current models of parent-school collaboration and the ideology of parental involvement in schooling.
Same as: EDUC 178X
EDUC 271X. Education Policy in the United States. 5 Units.
The course will provide students from different disciplines with an understanding of the broad educational policy context. The course will cover topics including a) school finance systems; b) an overview of policies defining and shaping the sectors and institutional forms of schooling, c) an overview of school governance, d) educational human-resource policy, e) school accountability policies at the federal and state levels; and f) school assignment policies and law, including intra- and inter-district choice policies, desegregation law and policy. This course is intended for PhD students only. Other students may contact the instructor for permission to enroll.
Same as: PhD

EDUC 272X. Understanding and Creating Value-Added Measures of Teacher Effectiveness. 3 Units.
This seminar will explore a variety of approaches to measuring teacher effectiveness using student performance on state standardized tests. We will read the recent research literature on value-added estimation, addressing issues such as bias and measurement error. We also will use administrative data from two large districts to create and compare multiple value-added measures. The class assumes a comfort with OLS regression and basic programming in Stata.

EDUC 273. Gender and Higher Education: National and International Perspectives. 4 Units.
This course examines the ways in which higher education structures and policies affect females, males, and students in relation to each other and how changes in these structures and policies improve experiences for females and males similarly or differently. Students are expected to gain an understanding of theories and perspectives from the social sciences relevant to an understanding of the role of higher education in relation to structures of gender differentiation and hierarchy. Topics include undergraduate and graduate education; identity and sexuality; gender and science; gender and faculty; and the development of feminist scholarship and pedagogy. Attention is paid to how these issues are experienced by women and men in the United States, including people of color, and by academics throughout the world, and how these have changed over time.
Same as: EDUC 173, FEMST 173, SOC 173, SOC 273

EDUC 274X. School Choice: The Role of Charter Schools. 3 Units.
(Formerly EDUC 153X.) Is school choice, including vouchers, charter schools, contract schools, magnet schools, district options, and virtual schools, a threat or an opportunity for public education? Focus is on the charter school movement nationally and in California as reform strategy. Roles and responsibilities of charter schools emphasizing issues of governance, finance, curriculum, standards, and accountability.

EDUC 275X. Leading U.S. Schools. 3-4 Units.
The landscape of schooling in the U.S. is dynamic and replete with ideologies, myths, and beliefs. Organizational theory, leadership theory, and empirical research are lenses through which students will develop a deeper and broader understanding of the similarities and differences among private schools, parochial schools, traditional K 12; 12 schools, charter schools, and alternative schools. Students will connect theory and research to practice by visiting and learning about two or more schools of their choosing.

EDUC 276. Educational Assessment. 3 Units.
Reliability, validity, bias, fairness, and properties of test scores. Uses of tests to monitor, manage, and reform instruction. Testing and competition, meritocracy, achievement gaps, and explanations for group differences.

EDUC 277. Education of Immigrant Students: Psychological Perspectives. 4 Units.
Historical and contemporary approaches to educating immigrant students. Case study approach focuses on urban centers to demonstrate how stressed urban educational agencies serve immigrants and native-born U.S. students when confronted with overcrowded classrooms, controversy over curriculum, current school reform movements, and government policies regarding equal educational opportunity.

EDUC 278. Introduction to Issues in Evaluation. 3-4 Units.
Open to master's and doctoral students with priority to students in the School of Education. Focus is on the basic literature and major theoretical and practical issues in the field of program evaluation. Topics include: defining purpose, obtaining credible evidence, the role of the evaluator, working with stakeholder, values in evaluation, utilization, and professional standards. The course project is to design an evaluation for a complex national or international program selected by the instructor.

EDUC 279X. American Jewish History: Learning to be Jewish in America. 2-4 Units.
This course will be a seminar in American Jewish History through the lens of education. It will address both the relationship between Jews and American educational systems, as well as the history of Jewish education in America. Placing the course along these two axes will provide a productive matrix for a focused examination of the American Jewish experience. History students must take course for at least 3 units.
Same as: AMSTUD 279X, HISTORY 288D, JEWISHST 297X, RELIGST 279X

EDUC 280X. Learning & Teaching of Science. 3 Units.
This course will provide students with a basic knowledge of the relevant research in cognitive psychology and science education and the ability to apply that knowledge to enhance their ability to learn and teach science, particularly at the undergraduate level. Course will involve readings, discussion, and application of the ideas through creation of learning activities. It is suitable for advanced undergraduates and graduate students with some science background.
Same as: PHYSICS 295

EDUC 281X. Technology for Learners. 3 Units.
How can we use technology to improve learning? Many hope that technology will make learning easier, faster, or accessible to more learners. This course explores a variety of different approaches to designing tools for learning, the theories behind them, and the research that tests their effectiveness. Topics include feedback, visualization, games, multimedia, tangible-digital interfaces, simulations, and more. Students will work on teams to identify a need, create a prototype, and design tests to understand its impact. This course is suitable for advanced undergraduates and graduate students in Education and to masters / upper-level students in Human Computer Interaction.

EDUC 282X. The Politics of Knowledge in the Twentieth Century United States. 3-5 Units.
This course examines the relationship between social scientific knowledge and power in the modern United States. Topics include the emergence of social scientific disciplines, debates over objectivity, and professionalization. The course examines both how universities, philanthropic foundations, and the federal government have shaped knowledge production and how social science has influenced law, social and educational policy, and popular social thought.

EDUC 283. Child Development In and Beyond Schools. 2 Units.
(Formerly EDUC 144.) How schools form a context for children's social and cognitive development. Focus is on early and middle childhood. Transactional processes between children and learning opportunities in classroom contexts. Topics include: alternative theoretical perspectives on the nature of child development; early experience and fit with traditional school contexts; assessment practices and implications for developing identities as learners; psychological conceptions of motivational processes and alternative perspectives; the role of peer relationships in schools; and new designs for learning environments. Readings address social science and methodological issues. STEP Elementary only.
EDUC 283X. Practicum in English-Spanish School & Community Interpreting. 3-4 Units.
This practicum will assist students in developing a set of skills in English-Spanish interpreting that will prepare them to provide interpretation services in school and community settings. The course will build students' abilities to transfer intended meanings between two or more monolingual individuals of who are physically present in a school or community setting and who must communicate with each other for professional (and personal) purposes.
Same as: CHILATST 183X, EDUC 183X

EDUC 284. Teaching and Learning in Heterogeneous Classrooms. 3 Units.
Teaching in academically and linguistically heterogeneous classrooms requires a repertoire of pedagogical strategies. Focus is on how to provide access to intellectually challenging curriculum and equal-status interaction for students in diverse classrooms. Emphasis is on group work and its cognitive, social, and linguistic benefits for students. How to prepare for group work, equalize participation, and design learning tasks that support conceptual understanding, mastery of content and language growth. How to assess group products and individual contributions. (STEP).

EDUC 285. Supporting Students with Special Needs. 2-3 Units.
For STEP teacher candidates. Needs of exceptional learners, identification of learning differences and disabilities, and adaptations in the regular inclusion classroom. Legal requirements of special education, testing procedures, development of individualized education plans, and support systems and services. Students follow a special needs learner to understand diagnosis, student needs, and types of services.

EDUC 286B. Second Language Acquisition Research. 4 Units.
Major research findings and theories in second language acquisition. Second language research and theories in formal and informal settings where a second language is learned.

EDUC 287X. Graduate Research Workshop on Psychological Interventions. 3 Units.
Psychological research has the potential to create novel interventions that promote the public good. This workshop will expose students to psychologically 'wise' intervention research and to support their efforts to conduct such interventions, especially in the context of education, broadly conceived, as well as other areas. The first part of the class will address classic interventions and important topics in intervention research, including effective delivery mechanisms, sensitive behavioral outcomes, the role of theory and psychological process, and considerations of the role of time and of mechanisms that can sustain treatment effects over time. In the second part of the class, students will present and receive feedback on their own ongoing and/or future intervention research. Prerequisite: Graduate standing in Psychology or Education, or consent of instructor.
Same as: PSYCH 274

EDUC 288. Organizational Analysis. 4 Units.
Principles of organizational behavior and analysis; theories of group and individual behavior; organizational culture; and applications to school organization and design. Case studies.
Same as: SOC 366

EDUC 289. The Centrality of Literacies in Teaching and Learning. 3 Units.
(Formerly EDUC 166.) Focus is on principles in understanding, assessing, and supporting the reading and writing processes, and the acquisition of content area literacies in secondary schools. Literacy demands within particular disciplines and how to use oral language, reading, and writing to teach content area materials more effectively to all students. (STEP).

EDUC 290. Instructional Leadership: Building Capacity for Excellent Teaching. 3-4 Units.
This course focuses on the role of leaders in designing, supporting and sustaining excellent teaching. How do leaders create the organizational conditions to focus attention on the technical core of instruction, curriculum and assessment. Course goals: 1) explore a variety of educational leadership approaches, 2) investigate the theory of action underlying these approaches to leadership and consider the implications for instructional practice and 3) develop understanding of the relationship between the leadership approach and the learning environment.

EDUC 291. Learning Sciences and Technology Design Research Seminar and Colloquium. 1-3 Unit.
Students and faculty present and critique new and original research relevant to the Learning Sciences and Technology Design doctoral program. Goal is to develop a community of scholars who become familiar with each other's work. Practice of the arts of presentation and scholarly dialogue while introducing seminal issues and fundamental works in the field.

EDUC 291X. Introduction to Survey Research. 3-4 Units.
Planning tasks, including problem formulation, study design, questionnaire and interview design, pretesting, sampling, interviewer training, and field management. Epistemological and ethical perspectives. Issues of design, refinement, and ethics in research that crosses boundaries of nationality, class, gender, language, and ethnicity.
Same as: EDUC 191X

EDUC 292. Academic Writing for Clarity and Grace. 2-4 Units.
Students will acquire helpful writing strategies, habits, and critical faculties; increase their sense of writing as revision; and leave them with resources that will support them in their own lifelong pursuit of good writing. Students will work on revising their own papers and editing papers of other students. Class will focus on exercises in a variety of critical writing skills: framing, concision, clarity, emphasis, rhythm, action, actors, argument, data, quotations, and usage. Course enrollment limited to graduate students.

EDUC 293X. Church, State, & Schools: Issues in Education & Religion. 4 Units.
This course will examine interactions between religion and education, focusing on both formal and experiential sites in which people and communities explore, articulate, encounter, and perform religious ideologies and identities. The class will focus on different religious traditions and their encounters the institutions and structures of education in American culture, both in the United States and as it manifests in American culture transnationally.
Same as: RELIGST 293X

EDUC 294X. History of the Learned Book. 3-5 Units.
The course takes full advantage of the university library's Special Collections to examine the key historic works contributing to the advancement of learning and the organization of knowledge. Beginning with medieval manuscripts and progressing through all areas of human inquiry during the age of print, the course explores the economic and educational history of learned publishing in the West, while examining what these historic artifacts reveal about developments in the structure and authority, production and circulation, technology and aesthetics, of learning and knowledge.

EDUC 295. Learning and Cognition in Activity. 3 Units.
Methods and results of research on learning, understanding, reasoning, problem solving, and remembering, as aspects of participation in social organized activity. Principles of coordination that support cognitive achievements and learning in activity settings in work and school environments.
Same as: PSYCH 261A
EDUC 296X. School Leadership. 3 Units.
Can one person really make a difference for all the students in a school? Accurate or not, that's the expectation faced by school principals. This course will give students practice in translating school improvement ideas into practice and also help them develop a personal vision for school improvement. For students in POLS or MA/MBA program in School of Education.

EDUC 297. Teaching and Learning in Higher Education. 3-4 Units.
This course is co-taught by Mariatte Denman, Associate Director of the Center on Teaching and Learning. It provides POLS students with an opportunity to focus on teaching and learning along with doctoral students from many disciplines throughout the university. Students watch and interview master teachers at Stanford, prepare a syllabus module for a workshop or class they might teach, and learn a range of effective pedagogical methods. Preparing an analytic paper is an alternative for those who do not want to prepare a syllabus module. The course is open not only to POLS students who expect to work in higher education, but also to students interested in K-12 education, and they may develop a teaching module for use in those schools.
Same as: CTL 297

EDUC 298. Seminar on Teaching Introductory Computer Science. 1 Unit.
Faculty, undergraduates, and graduate students interested in teaching discuss topics raised by teaching computer science at the introductory level. Prerequisite: consent of instructor.
Same as: CS 298

EDUC 299. Educating for Equity and Democracy. 2 Units.
(Formerly EDUC 167.) Introduction to the theories and practices of equity and democracy in education. How to think about teaching and schooling in new ways; the individual moral and political reasons for becoming a teacher. (STEP).

EDUC 302. Behavior Design: Connecting People to Nature. 3 Units.
Students learn Behavior Design and practice applying the methods to change human behavior in measurable ways. In this particular course, all projects will focus on one theme: Connecting people to nature.

EDUC 302X. Incentives In Education. 1-4 Unit.
Seminar. Theoretical and empirical literatures from psychology and economics that focus on group and individual incentives and their potential effects. Emphasis is on seminal experiments in psychology and the recent wave of economic field experiments that test the how individual incentives affect educational outcomes and intrinsic motivation.

EDUC 303X. Designing Learning Spaces. 3-4 Units.
Project-based. How space shapes personal interactions and affords learning opportunities in formal and informal settings. How to integrate learning principles into the design of spaces and develop a rubric to assess the impact on learning.

EDUC 304. Foundations and Contemporary Topics in Social-Educational Psychology. 2-4 Units.
At its core, social psychology is concerned with educational problems because it addresses the problem of how to change hearts and minds in lasting ways. This course explores the major ideas, theories, and findings of social psychology, their educational implications, and the insights they shed into how and when people change. There will be a focus on educational issues. Intersections with other disciplines, in particular social development and biology, will be addressed. Historical tensions and traditions, as well as classic studies and theories, will be covered. Graduate students from other disciplines, and advanced undergraduates, are welcome (class size permitting).
Same as: PSYCH 280

EDUC 306A. Economics of Education in the Global Economy. 5 Units.
Case material considers development problems in the U.S. and abroad. Discussion sections on economic aspects of educational development.

EDUC 306B. The Politics of International Cooperation in Education. 3-5 Units.
Education policy, politics, and development. Topics include: politics, interests, institutions, policy, and civil society; how schools and school systems operate as political systems; how policy making occurs in educational systems; and theories of development.

EDUC 306D. World, Societal, and Educational Change: Comparative Perspectives. 4-5 Units.
Theoretical perspectives and empirical studies on the structural and cultural sources of educational expansion and differentiation, and on the cultural and structural consequences of educational institutionalization. Research topics: education and nation building; education, mobility, and equality; education, international organizations, and world culture.
Same as: EDUC 136, SOC 231

EDUC 306Y. Economic Support Seminar for Education and Economic Development. 1 Unit.
Core economic concepts that address issues in education in developing and developed countries. Supply and demand, elasticity, discount rates, rate of return analysis, utility functions, and production functions. Corequisite: 306A. (Carnoy)

EDUC 307X. Organizing for Diversity: Opportunities and Obstacles in Groups and Organizations. 3-4 Units.
Obstacles in organizations and groups that prevent people from participating, working effectively, and developing relationships in the context of diversity. How to create conditions in which diversity enhances learning and effectiveness? Experiential exercises; students experiment with conceptual and analytic skills inside and outside of the classroom.

EDUC 308X. Mobile Learning Technology for the Marginalized. 1-3 Unit.
Learning design principles as a basis for developing and evaluating mobile learning systems to address educational inequalities in underserved communities. Students analyze mobile learning scenarios, prototypes, and authentic tools while collaborating with research teams to develop a small-scale mobile empowerment scenario addressing education needs such as language, math, health, and civic and life skills in developing countries.

EDUC 309X. Educational Issues in Contemporary China. 3-4 Units.
Reforms such as the decentralization of school finance, emergence of private schools, expansion of higher education, and reframing of educational policy to focus on issues of quality. Have these reforms exacerbated educational inequality.
Same as: EDUC 109X

EDUC 310. Sociology of Education: The Social Organization of Schools. 4 Units.
Seminar. Key sociological theories and empirical studies of the links between education and its role in modern society, focusing on frameworks that deal with sources of educational change, the organizational context of schooling, the impact of schooling on social stratification, and the relationships between the educational system and other social institutions such as families, neighborhoods, and the economy.
Same as: EDUC 110, SOC 132, SOC 332

EDUC 311X. Designing Learning for Development: Learning Theories, Technology Design and Social Change. 3 Units.
Perspectives on learning and human development as they relate to prior technological interventions in the development sphere. Case studies in the international development context; historical perspective on learning and development. Methods of inquiry useful in a design process engaging technology within a development framework.
EDUC 312B. Microsociology: Social Structure and Interaction. 4 Units.
How to interpret interpersonal situations using microsociological theories. Focuses on the role of intention, identity, routines, scripts, rituals, conceptual frameworks, talk and emotions in social interaction. Processes by which interactions reverberate outward to transform groups and social structures. Special consideration will be placed on organizational contexts like schools, workplaces and policy decision arenas.
Same as: SOC 224B
EDUC 313X. The Education of American Jews. 4 Units.
This course will take an interdisciplinary approach to the question of how American Jews negotiate the desire to retain a unique ethnic sensibility without excluding themselves from American culture more broadly. Students will examine the various ways in which people debate, deliberate, and determine what it means to be an "American Jew". This includes an investigation of how American Jewish relationships to formal and informal educational encounters through school, popular culture, religious ritual, and politics.
Same as: JEWISHST 393X, RELIGST 313X
EDUC 315X. Race and Ethnicity in Society and Institutions. 1-5 Unit.
Primarily for doctoral students. Major theories and empirical research. Emphasis is on schooling and race, racial identity, urban issues, and the impact of immigration on race relations.
Same as: SOC 347
EDUC 317X. Workshop: Networks, Histories, and Theories of Action. 1-2 Unit.
Yearlong workshop where doctoral students are encouraged to collaborate with peers and faculty who share an interest in researching the network dynamics, histories and theories of action that help explain particular social phenomena. Students present their own research and provide helpful feedback on others' work. Presentations may concern dissertation proposals, grants, article submissions, book proposals, datasets, methodologies and other texts. Repeatable for credit.
Same as: SOC 317W
EDUC 318X. The Discourses of Teaching Reading. 3-5 Units.
Students examine language, social relationships, and students' textual sense-making to further develop their conceptions of reading comprehension and their pedagogical practice as reading teachers. What it means to comprehend text; how classroom discourse matters in the development of textual understanding; and what understandings, purposes, and relationships should matter in classroom talk about text. Field work in which students facilitate small group text discussions for the duration of the quarter at a location of their choice.
EDUC 321. Analysis of Social Interaction. 4 Units.
Practicum on discourse, interactional, and cultural analysis of videotaped data. Analysis of interactional data, and the basis on which analytic claims can be founded. The transcription of speech and movement in social interaction, and how to identify the patterns which participants use to display and interpret cultural meanings. The theoretical assumptions hidden in transcription systems. Prerequisite: first- or second-year graduate student.
EDUC 321X. Leading Social Change: Educational and Social Entrepreneurship. 4 Units.
(Same as OB 385) The course provides an overview of different approaches to leading change in the social sector, drawing primarily, but not exclusively, on case examples in education. While there is a substantial need for innovation and visionary leadership in sectors such as education, social entrepreneurs who want to drive change must appreciate the significant barriers and unique opportunities presented by non-market forces in these sectors. The course will equip students with an appreciation for different mechanisms of change and theories of action as well as some of the challenges of initiating and sustaining meaningful change in social sectors such as education. The course will draw on readings and case studies, and we will benefit from the wisdom of an inspirational group of guest lecturers. While the course will benefit any student concerned with making a positive impact in the world, it is particularly (although not exclusively) appropriate for students in the joint MA/MBA program as well as those who will lead social change through nonprofit consulting or entrepreneurship.
Same as: OB 385
EDUC 322. Community-based Research As Tool for Social Change:Discourses of Equity in Communities & Classrooms. 3-5 Units.
Issues and strategies for studying oral and written discourse as a means for understanding classrooms, students, and teachers, and teaching and learning in educational contexts. The forms and functions of oral and written language in the classroom, emphasizing teacher-student and peer interaction, and student-produced texts. Individual projects utilize discourse analytic techniques. Prerequisite: graduate status or consent of instructor.
Same as: AFRICAAM 130, CSRE 130, EDUC 123X
EDUC 323A. The Practice of Education Policy Analysis. 3-5 Units.
Key issues in the K-12 education policy. Modern theories about the making of policy and its implementation. Preparation to do policy analysis in education.
EDUC 324X. The Ecology of Equality. 1-4 Unit.
A biweekly, one-hour workshop that meets throughout the full academic year. Designed for doctoral students and explores a range of issues pertaining to equity and equality in the United States and globally. Takes an interdisciplinary approach and intended for those who desire a deeper exploration of humanistic, social science and philosophical explanations for existing conditions, crises, and policies in society, as they pertain to various forms of social inequality--with a particular focus on race, ethnicity, class, gender, and sexuality.
EDUC 325A. Proseminar 1. 3 Units.
Required of and limited to first-year Education doctoral students. Core questions in education: what is taught, to whom, and why; how do people learn; how do teachers teach and how do they learn to teach; how are schools organized; how are educational systems organized; and what are the roles of education in society?.
EDUC 325B. Proseminar 2. 3 Units.
Required of and limited to first-year Education doctoral students. Core questions in education: what is taught, to whom, and why; how do people learn; how do teachers teach and how do they learn to teach; how are schools organized; how are educational systems organized; and what are the roles of education in society?.
EDUC 325C. Proseminar 3. 2-4 Units.
Required of and limited to first-year Education doctoral students. Core questions in education: what is taught, to whom, and why; how do people learn; how do teachers teach and how do they learn to teach; how are schools organized; how are educational systems organized; and what are the roles of education in society?.
EDUC 326. Law, Litigation, and Educational Policy. 3 Units.
Same as LAW 364. Restricted to Education graduate students and Law students. Interplay among educational law and policy, administrative decision making, and practice. Issues include the relationship between schooling and the state, nature and scope of students' substantive and procedural rights inside the schoolhouse, and how law and litigation have advanced or stymied the goal of equality of educational opportunity.

EDUC 327A. The Conduct of Qualitative Inquiry. 3-4 Units.
Two quarter sequence for doctoral students to engage in research that anticipates, is a pilot study for, or feeds into their dissertations. Prior approval for dissertation study not required. Students engage in common research processes including: developing interview questions; interviewing; coding, analyzing, and interpreting data; theorizing; and writing up results. Participant observation as needed. Preference to students who intend to enroll in 327C.
Same as: SOC 331

EDUC 327C. The Conduct of Qualitative Inquiry. 1-4 Unit.
For doctoral students. Students bring research data for analysis and writing. Preference to those who have completed 327A.

EDUC 328. Topics in Learning and Technology: Core Mechanics for Learning. 3 Units.
Contents of the course change each year. The course can be repeated. In game play, core mechanics refers to the rules of interaction that drive the game forward. This class will consider whether there are core mechanics that can drive learning forward, and if so, how to build them into learning environments.

EDUC 328A. Topics in Learning and Technology: d.compress - Designing Calm. 3 Units.
Contents of the course change each year. The course can be repeated. Stress silently but steadily damages physical and emotional well-being, relationships, productivity, and our ability to learn and remember. This highly experiential and project-oriented class will focus on designing interactive technologies to enable calm states of cognition, emotion, and physiology for better human health, learning, creativity and productivity.
Same as: CS 377D

EDUC 329X. Seminar on Teacher Professional Development. 1-4 Unit.
For master's and doctoral students. Theories, principles, and models of professional development. Issues include: different conceptions of teaching, practice, and development; what gets developed in professional development; pedagogies of professional development; structures to support teacher learning; evaluating professional development; and policy issues.

EDUC 330X. Teaching English Language Learners: Issues in Policy, Leadership, and Instruction. 3-4 Units.
Current perspectives and research on issues facing educators serving the English language learner population. Issues include federal education legislation, civil rights law, national Common Core Standards, content and language proficiency standards assessment and accountability, school improvement models, school structure, community engagement, addressing issues of long-term English learners, programming for newcomer ELLs, early childhood education, and promoting bilingualism.

EDUC 332. Theory and Practice of Environmental Education. 3 Units.
Foundational understanding of the history, theoretical underpinnings, and practice of environmental education as a tool for addressing today's pressing environmental issues. The purpose, design, and implementation of environmental education in formal and nonformal settings with youth and adult audiences. Field trip and community-based project offer opportunities for experiencing and engaging with environmental education initiatives.

EDUC 333A. Understanding Learning Environments. 3 Units.
Advanced seminar. Theoretical approaches to learning used to analyze learning environments and develop goals for designing resources and activities to support effective learning practices.

EDUC 333B. Imagining the Future of Learning: SparkTruck - Designing Mobile Interventions for Education. 4 Units.
Created at the d.school last year, SparkTruck has traveled over 15,000 miles across the USA, teaching thousands of kids how to build stuff and unleash their creativity. In this class, students will explore the potential of a mobile platform for affecting change in the educational ecosystem. Topics will include introductions to the design process, modern prototyping tools, and the complex education ecosystem. Students will work in teams in this project-based class, and an emphasis will be placed on real-world prototyping through hands-on field work in local schools. Interested and qualified students will have the opportunity to embark on a cross-country road trip in the SparkTruck this summer. Open to all graduate students and well-qualified undergrads of any major. Enrollment is limited. Apply at www.sparktruck.org/apply.
Same as: ME 376A

EDUC 334A. Youth and Education Law Project: Clinical Practice. 4 Units.
(Same as LAW 660A). The Youth and Education Law Project offers students the opportunity to participate in a wide variety of educational rights and reform work, including direct representation of youth and families in special education and school discipline matters, community outreach and education, school reform litigation, and/or policy research and advocacy. All students have an opportunity to represent elementary and high school students with disabilities in special education proceedings, to represent students in school discipline proceedings, or to work with community groups in advocating for the provision of better and more equitable educational opportunities to their children. In addition, the clinic may pursue a specific policy research and advocacy project that will result in a written policy brief and policy proposal. Students working on special education matters have the opportunity to handle all aspects of their clients' cases. Students working in this area interview and counsel clients, investigate and develop facts, work with medical and mental health professionals and experts, conduct legal and educational research, create case plans, and represent clients at individual education program (IEP) team meetings, mediation or special education due process hearings. This work offers students a chance to study the relationship between individual special education advocacy and system-wide reform efforts such as impact litigation. Students working on school discipline matters interview and counsel clients, investigate and develop facts, interview witnesses, conduct legal and educational research, create case plans, and represent clients at school discipline proceedings such as expulsion hearings. Such hearings provide the opportunity to present oral and written argument, examine witnesses, and present evidence before a hearing officer. If appropriate and necessary, such proceedings also present the opportunity to represent students on appeal before the school district board of trustees or the county board of education. The education clinic includes two or more mandatory training sessions to be held at the beginning of the term, a weekly seminar that focuses on legal skills and issues in law and education policy, regular case review, and a one hour weekly meeting with the clinic instructor. Admission is by consent of instructor. Beginning with the 2009-2010 academic year, each of the Law School's clinical courses is being offered on a full-time basis for 12 credits.
EDUC 334B. Youth and Education Law Project: Clinical Methods. 4 Units.
(Same as LAW 660B). The Youth and Education Law Project offers students the opportunity to participate in a wide variety of educational rights and reform work, including direct representation of youth and families in special education and school discipline matters, community outreach and education, school reform litigation, and/or policy research and advocacy. All students have an opportunity to represent elementary and high school students with disabilities in special education proceedings, to represent students in school discipline proceedings, or to work with community groups in advocating for the provision of better and more equitable educational opportunities to their children. In addition, the clinic may pursue a specific policy research and advocacy project that will result in a written policy brief and policy proposal. Students working on special education matters have the opportunity to handle all aspects of their clients’ cases. Students working in this area interview and counsel clients, investigate and develop facts, work with medical and mental health professionals and experts, conduct legal and educational research, create case plans, and represent clients at individual education program (IEP) team meetings, mediation, or special education due process hearings. This work offers students a chance to study the relationship between individual special education advocacy and system-wide reform efforts such as impact litigation. Students working on school discipline matters interview and counsel clients, investigate and develop facts, interview witnesses, conduct legal and educational research, create case plan, and represent clients at school discipline hearings such as expulsion hearings. Such hearings provide the opportunity to present oral and written argument, examine witnesses, and present evidence before a hearing officer. If appropriate and necessary, such proceedings also present the opportunity to represent students on appeal before the school district board of trustees of the county board of education. The education clinic includes two or three mandatory training sessions to be held at the beginning of the term, a weekly seminar that focuses on legal skills and issues in law and education policy, regular case review, and a one hour weekly meeting with the clinic instructor. Admission is by consent of instructor. Beginning with the 2009-2010 academic year, each of the Law School’s clinical courses is being offered on a full-time basis for 12 credits.

EDUC 334C. Youth and Education Law Project: Clinical Coursework. 4 Units.
(Same as LAW 660C). The Youth and Education Law Project offers students the opportunity to participate in a wide variety of educational rights and reform work, including direct representation of youth and families in special education and school discipline matters, community outreach and education, school reform litigation, and/or policy research and advocacy. All students have an opportunity to represent elementary and high school students with disabilities in special education proceedings, to represent students in school discipline proceedings, or to work with community groups in advocating for the provision of better and more equitable educational opportunities to their children. In addition, the clinic may pursue a specific policy research and advocacy project that will result in a written policy brief and policy proposal. Students working on special education matters have the opportunity to handle all aspects of their clients’ cases. Students working in this area interview and counsel clients, investigate and develop facts, work with medical and mental health professionals and experts, conduct legal and educational research, create case plans, and represent clients at individual education program (IEP) team meetings, mediation, or special education due process hearings. This work offers students a chance to study the relationship between individual special education advocacy and system-wide reform efforts such as impact litigation. Students working on school discipline matters interview and counsel clients, investigate and develop facts, interview witnesses, conduct legal and educational research, create case plan, and represent clients at school discipline hearings such as expulsion hearings. Such hearings provide the opportunity to present oral and written argument, examine witnesses, and present evidence before a hearing officer. If appropriate and necessary, such proceedings also present the opportunity to represent students on appeal before the school district board of trustees or the county board of education. The education clinic includes two or three mandatory training sessions to be held at the beginning of the term, a weekly seminar that focuses on legal skills and issues in law and education policy, regular case review, and a one hour weekly meeting with the clinic instructor. Admission is by consent of instructor. Beginning with the 2009-2010 academic year, each of the Law School’s clinical courses is being offered on a full-time basis for 12 credits.

EDUC 334X. Education Advocacy Clinic. 2-10 Units.
(Same as LAW 660X.) For students enrolled in the Education (M.A.) and Law (J.D.) joint degree program and those who already possess Law degrees only. Students participate in educational rights and reform work with clients and communities, including direct representation of youth and families in special education and school discipline matters, community outreach and education, school reform litigation, and/or policy research and advocacy. May be repeated for credit. Prerequisite: consent of instructor.

EDUC 335X. Designing Research-Based Interventions to Solve Global Health Problems. 3-4 Units.
The excitement around social innovation and entrepreneurship has spawned numerous startups focused on tackling world problems, particularly in the fields of education and health. The best social ventures are launched with careful consideration paid to research, design, and efficacy. This course offers students insights into understanding how to effectively develop, evaluate, and scale social ventures. Using TeachAIDS (an award-winning nonprofit educational technology social venture used in 78 countries) as a primary case study, students will be given an in-depth look into how the entity was founded and scaled globally. Guest speakers will include world-class experts and entrepreneurs in Philanthropy, Medicine, Communications, Education, and Technology. Open to both undergraduate and graduate students.
Same as: AFRICAST 135, AFRICAST 235, EDUC 135X, HUMBIO 26, MED 235
EDUC 336. Language, Identity, and Classroom Learning. 1-3 Unit.
As contemporary research focuses on how people act and recognize each other, analyzing interaction while acknowledging identity allows for a dynamic examination of cultural interaction. Broad cultural categorization can be overly expansive in identifying the characteristics of large groups of individuals.

EDUC 336A. Law and Public Policy: Issues in Implementation. 3 Units.
(Same as LAW 636.) This seminar will focus on issues related to achieving successful implementation of the goals of legislation. It is widely recognized that the goals of legislation often are not realized and that the failure frequently rests in breakdowns in the implementation process by the agencies and organizations charged with implementing the legislation. In response to problems in implementation, the institutional context of public policy implementation is changing. One category of innovations, known by names such as "management-based regulation" and "evidence-based" social service delivery, gives broad discretion to street-level service providers but subjects them to intensive monitoring and disciplined performance comparison. Another category applies market concepts to regulation or social services, for example, by creating tradable rights (e.g., pollution allowances) or vouchers (for schools, housing, or healthcare). These, and other, new approaches are affecting both the contours of public law doctrine and the nature of lawyering in the public sector. Lawyers in the public sector are increasingly drawing on skills of institutional design and monitoring of the kind associated with private sector transactional practice. This seminar will examine some of the emerging general themes of innovative policy implementation and look at a range of case studies. Topics will include the conditions under which financial and other rewards and sanctions are useful in bringing about desired behaviors, the pluses and minuses of the creation of markets as alternatives to government run programs, and efforts at improving implementation by improving management activities. Examples will be taken from both regulation and social services, and are likely to include environmental protection, education, child protective services, healthcare, food and workplace safety, nuclear power safety, and regulation of financial institutions. We will invite presentations by academics and practitioners.

EDUC 337. Race, Ethnicity, and Linguistic Diversity in Classrooms: Sociocultural Theory and Practices. 3-5 Units.
Focus is on classrooms with students from diverse racial, ethnic and linguistic backgrounds. Studies, writing, and media representation of urban and diverse school settings; implications for transforming teaching and learning. Issues related to developing teachers with attitudes, dispositions, and skills necessary to teach diverse students.
Same as: AFRICAAM 106, CSRE 103B, EDUC 103B

EDUC 338X. Innovations in Education. 3-4 Units.
Each year students in this course explore a new design challenge related to teaching. This year we will focus on creating school models. We welcome graduate students from a wide range of disciplines. Admission by application. Please see more information at http://dschool.stanford.edu.

EDUC 339. Advanced Topics in Quantitative Policy Analysis. 1-2 Unit.
For doctoral students. How to develop a researchable question and research design, identify data sources, construct conceptual frameworks, and interpret empirical results. Presentation by student participants and scholars in the field. May be repeated for credit.

EDUC 340. Psychology and American Indian Mental Health. 3-5 Units.
Western medicine’s definition of health as the absence of sickness, disease, or pathology; Native American cultures’ definition of health as the beauty of physical, spiritual, emotional, and social things, and sickness as something out of balance. Topics include: historical trauma; spirituality and healing; cultural identity; values and acculturation; and individual, school, and community-based interventions. Prerequisite: experience working with American Indian communities.
Same as: NATIVEAM 240

EDUC 341X. Urban School System Reform. 4 Units.
Strategies for large-scale reform of complex school systems. Case studies of urban school systems. Sources include approaches developed in management studies, organizational behavior, and school reform. Political and community contexts; the role of urban superintendents and administrators in creating reform strategies. Factors such as labor relations and the regulatory environment. Guest speakers.

EDUC 342. Child Development and New Technologies. 3 Units.
Focus is on the experiences using technologies afford children and how these experiences might influence development. Sociocultural theories of development as a conceptual framework for understanding how computing technologies interact with the social ecology of the child and how children actively use technology to meet their own goals. Emphasis is on influences of interactive technology on cognitive development, identity, and social development equity.

EDUC 343X. Navigating the Academic Profession. 1-2 Unit.
For DARE doctoral fellows only. The roles and responsibilities of faculty members in American colleges and universities in the 21st century. How to become productive faculty members within the higher education enterprise.

EDUC 345X. Adolescent Development and Schooling. 3-5 Units.
How the context of school and its relationship to other major context developments (family, peer group, and neighborhood) influence the social, emotional, and cognitive development of secondary school-aged youths. Metatheoretical approaches (mechanistic, organismic, developmental contextualist metamodels) and methods of conducting research on schooling and development (laboratory, survey, ethnographic, intervention). Topics: school transitions during adolescence; the role of school functioning in broader patterns of competence or distress; and how the organization of academic tasks, classrooms, and school environments as a whole can influence adolescent development. Focus is on middle and high school years. (PSE).

EDUC 346. Research Seminar in Higher Education. 4 Units.
Required for higher education students. Major issues, current structural features of the system, the historical context that shaped it, and theoretical frameworks. The purposes of higher education in light of interest groups including students, faculty, administrators, and external constituents. Issues such as diversity, stratification, decentralization, and changes that cut across these groups.

EDUC 347. The Economics of Higher Education. 4 Units.
Topics: the worth of college and graduate degrees, and the utilization of highly educated graduates; faculty labor markets, careers, and workload; costs and pricing; discounting, merit aid, and access to higher education; sponsored research; academic medical centers; and technology and productivity. Emphasis is on theoretical frameworks, policy matters, and the concept of higher education as a public good. Stratification by gender, race, and social class.

EDUC 348X. Policy and Practice in Science Education. 3-4 Units.
Values and beliefs that dominate contemporary thinking about the role and practice of science education, what the distinctive features of science are, and the arguments for its value as part of compulsory education. Research on the conceptual and affective outcomes of formal science education, how the changing nature of contemporary society challenges current practice, and the rationale for an alternative pedagogy, curriculum and assessment.

EDUC 350X. Workshop on New Research. 1 Unit.
This course will integrate attendance and participation at the research lectures given by visitors with separate, faculty-led workshops that discuss the presented study, its methodologies, and the research and policy contexts in which it is situated. This workshop will also provide an opportunity for professional development relevant to academic publishing and effective presentation.
EDUC 351A. Statistical Methods for Longitudinal Data. 2-3 Units. Research designs and statistical procedures for time-ordered (repeated-measures) data. The analysis of longitudinal panel data is central to empirical research on learning, development, aging, and the effects of interventions. Topics include: measurement of change, growth curve models, analysis of durations including survival analysis, experimental and non-experimental group comparisons, reciprocal effects, stability. See http://web.stanford.edu/~rag/stat222/. Prerequisite: intermediate statistical methods. Same as: STATS 222

EDUC 351B. Statistical Issues in Testing and Assessment. 2-3 Units. The new book by Howard Wainer, "Uneducated Guesses: Using Evidence to Uncover Misguided Education Policies" is the basis for this seminar. Also included will be supporting research literature and data analysis activities for topics such as college admissions, methods for missing data, assessment of achievement gaps, and the use of value-added analysis. See http://www-stat.stanford.edu/~rag/ed351b/

EDUC 351C. Workshop in Technical Quality of Educational Assessments and Accountability, 3 Units. Topics include: determinations of accuracy for individual scores and group summaries; design and reporting of educational assessments; achievement instruments in state-level accountability systems; and policy implications of statistical properties. See http://www.stanford.edu/~rag/.

EDUC 353C. Problems in Measurement: Generalizability Theory, 3 Units. Application to analysis of educational achievement data, including performance assessments. Fundamental concepts, computer programs, and actual applications.

EDUC 354. School-Based Decision Making, 4 Units. Leadership and organizational issues. Leadership as it plays out in the pragmatic demands and tensions of site-level decision processes. Interdependence of several factors critical to school achievement and equity outcomes: governance, culture, instruction, resource alignment, data/inquiry, community engagement. School decision-making as a capacity-building process.

EDUC 355X. Higher Education and Society, 3 Units. For undergraduates and graduate students interested in what colleges and universities do, and what society expects of them. The relationship between higher education and society in the U.S. from a sociological perspective. The nature of reform and conflict in colleges and universities, and tensions in the design of higher education systems and organizations.

EDUC 356. Street History: Learning the Past in School and Out. 3-5 Units. Interdisciplinary. Since Herodotus, history and memory have competed to shape minds: history cultivates doubt and demands interpretation; memory seeks certainty and detests that which thwarts its aims. History and memory collide in modern society, often violently. How do young people become historical amidst these forces; how do school, family, nation, and mass media contribute to the process?. Same as: HISTORY 337C

EDUC 357. Science and Environmental Education in Informal Contexts, 3-4 Units. There are ever-expanding opportunities to learn science in contexts outside the formal classroom, in settings such as zoos, museums, and science centers. How are issues around science and the environment presented in these contexts, how do people behave and learn in these contexts, and what messages do they take away? This course will cover the learning theories and empirical research that has been conducted in these settings. Case studies of nearby science centers will add an experiential dimension.

EDUC 358X. Learning, Sharing, Publishing, and Intellectual Property, 1-4 Unit. The educational, historical, legal, economic, technical, and ethical issues entailed in the digital-era openness and sharing of intellectual properties associated with learning (including books, websites, games, journals, etc.). The skills and knowledge for finding, developing, and evaluating resources at all educational levels, based on a grasp of the opportunities and challenges of increasing access to learning in this way. As part its global focus on open learning, the course will be run in conjunction with the OpenKnowledge MOOC "Changing the Global Course of Learning" (https://class.stanford.edu/courses/education/OpenKnowledge/Fall2014/about), offering students the option of both experiencing and studying a MOOC on this theme, which is being co-taught in Mexico, Ghana, Canada, and the U.S. (Stanford and Fordham) in English and Spanish.

EDUC 359B. Science Learning, 2-3 Units. For doctoral students interested in science education and literacy in school subjects.

EDUC 359C. Science Literacy, 2-3 Units. The changing debate over conceptions of the nature of science and the calls to broaden it. Themes, directions, limitations, and epistemological foundations of the body of research on the nature of science.

EDUC 359F. Research in Mathematics Education: Conducting Inquiry. 2-4 Units. This seminar will serve as both a workshop for developing participants’ own professional trajectories as mathematics education scholars and a forum for discussion on key issues related to conducting research and making an impact in the field of mathematics education. Participants will be invited to share their own research and to engage in discussions about possible impact. This seminar is restricted to mathematics education students.

EDUC 360X. Developmental Psychopathology and Resilience, 3-4 Units. In this course students will learn about theoretical, methodological, and empirical issues pertaining to developmental psychopathology and resilience of children and adolescents. The course focuses on (1) current conceptual and empirical issues; (2) cognitive, affective, and motivational processes that underlie some of the most salient childhood mental health symptoms and disorders; (3) family, school, and cultural factors that contribute to developmental psychopathology and resilience; and (4) cutting-edge analytic methods that are currently employed in studies of developmental psychopathology and resilience.

EDUC 361. Workshop: Networks and Organizations. 1-3 Unit. For students doing advanced research. Group comments and criticism on dissertation projects at any phase of completion, including data problems, empirical and theoretical challenges, presentation refinement, and job market presentations. Collaboration, debate, and shaping research ideas. Prerequisite: courses in organizational theory or social network analysis. Same as: SOC 361W

EDUC 362X. The Science Curriculum: Values and Ideology in a Contested Terrain. 2-4 Units. The issue of what should be taught in schools is a site of contestation where issues of beliefs, values and ideologies emerge. This course will use the school science curriculum and the history of its development to explore the common positions adopted and argued for in approaching curriculum development. Course will help students develop a knowledge of curriculum reform in school science and a deeper understanding of the arguments that have shaped its present form and their historical antecedents.

EDUC 364. Cognition and Learning, 3-4 Units. Cognitive psychology is the study of human thought including topics including the nature of expertise, creativity, and memory. Emphasis is on learning. The role of cognitive psychology in helping people learn, and determining the most desirable type of learning and whether people have learned. Students design and conduct their own learning study.
EDUC 365. Social, Emotional, and Personality Development. 3 Units.
Limited to doctoral students in DAPS and those with a background in child and adolescent development. Developmental processes that account for psychological adaptation in social relationships, schools, and other interpersonal settings. Theoretical models of social, personality, and emotional development. Topics such as self-concept, empathy, motivation, aggression, and personality formation.

EDUC 366X. Learning in Formal and Informal Environments. 3 Units.
How learning opportunities are organized in schools and non-school settings including museums, after-school clubs, community art centers, theater groups, aquariums, sports teams, and new media contexts. Sociocultural theories of development as a conceptual framework. Readings from empirical journals, web publications, and books. Collaborative written or multimedia research project in which students observe and document a non-school learning environment.

EDUC 367. Cultural Psychology. 3-5 Units.
(Formerly 292.) The relationship between culture and psychological processes; how culture becomes an integral part of cognitive, social, and moral development. Both historical and contemporary treatments of cultural psychology, including deficit models, cross-cultural psychology, ecological niches, culturally specific versus universal development, sociocultural frameworks, and minority child development. The role of race and power in research on cultural psychology.

EDUC 368. Cognitive Development in Childhood and Adolescence. 3-4 Units.
This course aims to broaden and deepen students' understanding of cognitive development from the prenatal period through adolescence. It will examine various theoretical, methodological, and empirical issues pertaining to different domains of cognitive development, such as neurobiological plasticity, infant cognition, theory of mind, memory, language, and executive functions. Throughout the course, as we survey research findings, we will discuss (1) methods that researchers have employed in their study of cognitive development; (2) limitations of current research and directions for future research; and (3) translation of research findings for practitioners and policymakers.

EDUC 370X. Graduate Workshop: Feminist, Gender, and Sexuality Studies. 1-3 Unit.
Theory, methods, and research in feminist, gender, and sexuality studies, through presentations of ongoing work by students, faculty, and guest speakers, and discussion of recent literature and controversies, feminist pedagogy and career development issues. Restricted to doctoral students. Repeatable for credit. Required for PhD Minors in Feminist, Gender, and Sexuality Studies (3 quarters min.).
Same as: FEMGEN 299

EDUC 371X. Social Psychology and Social Change. 2-3 Units.
The course is intended an exploration of the major ideas, theories, and findings of social psychology and their applied status. Special attention will be given to historical issues, classic experiments, and seminal theories, and their implications for topics relevant to education. Contemporary research will also be discussed. Advanced undergraduates and graduate students from other disciplines are welcome. Interested students should contact Shannon Brady (sbrady@stanford.edu).
Same as: PSYCH 265

EDUC 373X. Teaching in the Humanities-Research into Adolescent Literacy. 3-5 Units.
Relatively little attention has been paid to the role of humanities courses in teaching both general and disciplinary skills in reading and writing. With the growth of small schools, more middle and high school teachers find themselves teaching ‘Humanities’ courses. This seminar will explore what it means to teach the humanities, with special attention to how such courses can develop disciplinary reading and writing skills. Course will investigate how we develop tools to assess teaching and learning in the humanities.

EDUC 374. Philanthropy and Civil Society. 1-3 Unit.
Cross-listed with Law (LAW 781), Political Science (POLISCI 334) and Sociology (SOC 374). Associated with the Center for Philanthropy and Civil Society (PACS). Year-long workshop for doctoral students and advanced undergraduates writing senior theses on the nature of civil society or philanthropy. Focus is on pursuing progressive research and writing contributing to the current scholarly knowledge of the nonprofit sector and philanthropy. Accomplished in a large part through peer review. Readings include recent scholarship in aforementioned fields. May be repeated for credit for a maximum of 9 units.
Same as: POLISCI 334, SOC 374

EDUC 375A. Seminar on Organizational Theory. 5 Units.
The social science literature on organizations assessed through consideration of the major theoretical traditions and lines of research predominant in the field.
Same as: MSE 389, SOC 363A

EDUC 375B. Seminar on Organizations: Institutional Analysis. 3-5 Units.
Seminar. Key lines of inquiry on organizational change, emphasizing network, institutional, and evolutionary arguments.
Same as: SOC 363B

EDUC 376. State Theory and Educational Policy. 4 Units.
The relationship between political system structures and educational change by analyzing theories and interpretations of how political systems function, and the implications of these theories for understanding education. Classical and Marxist interpretations.

EDUC 377. Comparing Institutional Forms: Public, Private, and Nonprofit. 4 Units.
For students interested in the nonprofit sector, those in the joint Business and Education program, and for Public Policy MA students. The focus is on the missions, functions, and capabilities of nonprofit, public, and private organizations, and the managerial challenges inherent in the different sectors. Focus is on sectors with significant competition among institutional forms, including health care, social services, the arts, and education. Sources include scholarly articles, cases, and historical materials.
Same as: GSBGEN 346, PUBLPOL 317, SOC 377

EDUC 377B. Strategic Management of Nonprofits. 4 Units.
(Same as STRAMGT 368). Strategic, governance, and management issues facing nonprofit organizations and their leaders in the era of venture philanthropy and social entrepreneurship. Development and fundraising, investment management, performance management, and nonprofit finance. Case studies include smaller, social entrepreneurial and larger, more traditional organizations, including education, social service, environment, health care, religion, NGOs, and performing arts.
EDUC 377C. Strategic Philanthropy. 3 Units.
(Also GSBGEN 381). Appropriate for any student driven to effect positive social change from either the for-profit or nonprofit sector, Strategic Philanthropy (GSBGEN 381/EDUC 377C) will challenge students to expand their own strategic thinking about philanthropic aspiration and action. In recent decades, philanthropy has become an industry in itself - amounting to over $300 billion in the year 2012. Additionally, the last decade has seen unprecedented innovation in both philanthropy and social change. This course explores the key operational and strategic distinctions between traditional philanthropic entities, such as community foundations, private foundations, and corporate foundations; and innovative models, including funding intermediaries, open-source platforms, technology-driven philanthropies, and venture philanthropy partnerships. Course work will include readings and case discussions that encourage students to analyze both domestic and global philanthropic strategies as they relate to foundation mission, grant making, evaluation, financial management, infrastructure, knowledge management, policy change, and board governance. Guest speakers will consist of high profile philanthropists, foundation presidents, social entrepreneurs and Silicon Valley business leaders creating new philanthropic models. The course will culminate in an individual project in which students will complete a business plan for a $10 million private foundation.

EDUC 377D. Strategic Leadership of Nonprofits. 4 Units.
Formulating, evaluating, and implementing mission and strategy. Case studies from nonprofits in social services, health care, education, and arts and culture. The interaction of strategy and mission, industry structure and evolution, strategic change, growth and replication, corporate strategy, governance, commercialization, alliances, capacity building, and leadership. Same as: STRAMGT 378

EDUC 378X. Seminar on Social Change Processes and Organizations. 3-4 Units.
Theories of social change and influence processes within and through organizations. Social change organizations. The interaction of philanthropic institutions and other social change organizations within civil society. Meso-level theories of change.

EDUC 379X. Educational Inequality: Legal and Social Science Perspectives. 3-5 Units.
This class will examine the issue of inequality in primary and secondary education, particularly with respect to race and socioeconomic status, from the perspectives of both law and social science. The course will distinguish between inequality in terms of inputs versus outputs, presenting the empirical evidence about each and the relationship between the two. The course will explore the history of legal and policy responses to persistent inequality, and consider the challenge of contemporary educational inequality and survey the competing policy approaches, from desegregation to increased and redistributed funding to efforts to improve instructional quality, to centralized accountability and testing to market-based solutions. Same as: LAW 505

EDUC 380. Supervised Internship. 1-15 Unit.

EDUC 381. Multicultural Issues in Higher Education. 4 Units.
The primary social, educational, and political issues that have surfaced in American higher education due to the rapid demographic changes occurring since the early 80s. Research efforts and the policy debates include multicultural communities, the campus racial climate, and student development; affirmative action in college admissions; multiculturalism and the curriculum; and multiculturalism and scholarship. Same as: EDUC 181

EDUC 382. Student Development and the Study of College Impact. 4 Units.
The philosophies, theories, and methods that undergird most research in higher education. How college affects students. Student development theories, models of college impact, and issues surrounding data collection, national databases, and secondary data analysis.

EDUC 386. Leadership and Administration in Higher Education. 2 Units.
Definitions of leadership and leadership roles within colleges and universities. Leadership models and organizational concepts. Case study analysis of the problems and challenges facing today's higher education administrators.

EDUC 387A. Workshop: Comparative Studies of Educational and Political Systems. 1-5 Unit.
Analysis of quantitative and longitudinal data on national educational systems and political structures. May be repeated for credit. Prerequisite: consent of instructor. Same as: SOC 311A

EDUC 387B. Workshop: Comparative Systems of Educational and Political Systems. 1-5 Unit.
Analysis of quantitative and longitudinal data on national educational systems and political structures. May be repeated for credit. Prerequisite: consent of instructor. Same as: SOC 311B

EDUC 387C. Workshop: Comparative Studies of Educational and Political Systems. 1-5 Unit.
Analysis of quantitative and longitudinal data on national educational systems and political structures. Prerequisite: consent of instructor. May be repeated for credit. Same as: SOC 311C

EDUC 388A. Language Policies and Practices. 2 Units.
For STEP teacher candidates seeking to meet requirements for the English Learner Authorization on their preliminary credential. Historical, political, and legal foundations of education programs for English learners. Theories of second language learning, and research on the effectiveness of bilingual education. Theory-based methods to facilitate and measure English learners’ growth in language and literacy acquisition, and create environments which promote English language development and content area learning through specially designed academic instruction in English. (STEP).

EDUC 388F. Introduction to Academic Language. 1 Unit.
This course will provide opportunities for pre-service teachers to begin to develop an understanding of language uses, forms, and mechanisms through application of a functional approach to academic language. By exploring language structures (phonology, morphology, syntax, semantics) as well as language-in-use (pragmatics and discourse), teacher candidates will be able to better recognize linguistic demands and challenges of students in the classroom.

EDUC 389X. Race, Ethnicity, and Language. 3-4 Units.
This seminar explores the linguistic construction of race and ethnicity across a wide variety of contexts and communities. Throughout the course, we will take a comparative perspective and highlight how different racial/ethnic formations participate in similar, yet different, ways of "doing race" though language, interaction and culture. Readings draw heavily from perspectives in (linguistic) anthropology and sociolinguistics. Prerequisite: consent of instructor. Same as: ANTHRO 320A, LINGUIST 253

EDUC 390X. Learning Analytics and Computational Modeling in Social Science. 3-4 Units.
Computational modeling and data-mining are dramatically changing the physical sciences, and more recently also the social and behavioral sciences. Traditional analysis techniques are insufficient to investigate complex dynamic social phenomena as social networks, online gaming, diffusion of innovation, opinion dynamics, classroom behavior, and other complex adaptive systems. In this course, we will learn about how modeling, network theory, and basic data-mining can support research in cognitive, and social sciences, in particular around issues of learning, cognitive development, and educational policy. Same as: CS 424M
EDUC 391X. Engineering Education and Online Learning. 3 Units.
An introduction to best practices in engineering education and educational technology, with a focus on online and blended learning. In addition to gaining a broad understanding of the field, students will experiment with a variety of education technologies, pedagogical techniques, and assessment methods.
Same as: EE 396

EDUC 392X. The Political Economy of Global Higher Education. 3-4 Units.
The course is intended to introduce students to the analysis of higher education and higher educational change in an international context, reviewing critically the current literature and showing how social scientists study higher education using quantitative and qualitative tools. The course will present a model of studying change, review political, sociological, and economic theories applied to higher education, and focus on four important case studies of higher education in the developing world: Brazil, Russia, India, and China, known also as the BRIC countries.

EDUC 393. Proseminar: Education, Business, Politics. 3 Units.
Overview of the field of education for joint degree (M.B.A./M.A.) students.

EDUC 394X. Research in Progress Seminar. 1 Unit.
This seminar will provide a forum where graduate students could discuss prospective research ideas, present ongoing research, and consider theoretical issues of broad interest to the field. nIn this research in progress seminar, students are expected to present ongoing research and have a discussion about it -- or a specific research article related to it --, with the purpose of eliciting feedback from the instructor and other seminar participants.

EDUC 395. Scholarly Writing in Education and the Social Sciences. 3-5 Units.
Focus is on producing articles for scholarly journals in education and the social sciences. Ethics and craft of scholarly publishing. Writing opinion articles for lay audiences on issues of educational and social import.

EDUC 396X. The Design of Technologies for Casual Learning. 3 Units.
Studio-based, participatory, and user-centered development of casuallustecnologies is explored, using the Apple iPhone as an prototype platform. The term “casual” is borrowed from casual gamin to denote that the learning technologies are meant for learners to use in "extreme informal" learning circumstances (while “on the go”, “anytime and any place”). The class builds on learning about and insynthesizing knowledge, theory and development activity in four areas including learning theories, mobile technologies, games and participatory design processes.
Same as: EDUC 196X

EDUC 397X. Math Mentoring: Working in the Zone with Learners. 1-2 Unit.
The course focuses on how the tutorial relationship can help students learn mathematics. The course will provide background theory and knowledge as well as provide practical approaches to tutoring, supports for targeting activities to students quest; needs, selection of materials and activities, and ways to assess the progress of the students and reflect on your own experience. Topics will include social theories of learning, teaching for understanding, and challenges of students who are English language learners. In addition to attending 4, two-hour workshop classes, 1 hour of tutoring is required each week. nThe course will meet 4 times during the quarter for workshops and discussions following Friday tutoring sessions. Students will submit assignments on the Coursework site on weeks that the course does not meet. A 1 unit section of the course will run in Winter and Spring quarters.
Same as: EDUC 187X

EDUC 398X. Market-Based Education Reforms. 2 Units.
(Same as GSBGEN 577). This seminar course examines market-based education reforms and evidence on their impacts. Topics considered in depth will include public school choice, charter schools, vouchers, incentives for students and teachers, and accountability. We will pay special attention to the design and operation of education markets, the politics and legal challenges of market-based school reform, and methods for evaluating reform initiatives. The course will draw on cases both within the United States and internationally.

EDUC 399A. Designing Surveys. 1-2 Unit.
This workshop/course is designed for students who are designing a survey for use in a research project. The workshop content draws on relevant cognitive processing theories and research (on comprehension, retrieval, judgment, and reporting). In addition to some readings and a few lectures, this workshop is designed to be highly interactive and practical. By the end of the course students will have designed and pilot tested their survey instrument. Course may be repeated for credit.

EDUC 399X. Mixed Methods Research. 3 Units.
This advanced course will address the theory and practice of mixing inquiry methodologies in social inquiry. The course will cover: 1) selected roots of the contemporary interest in mixing methods, 2) conceptualizations of mixed methods design and analysis, and 3) challenges of mixed methods practice.

EDUC 401A. Mini Courses in Methodology: Statistical Packages for the Social Sciences. 1 Unit.
Statistical analysis using SPSS, including generating descriptive statistics, drawing graphs, calculating correlation coefficients, conducting t-tests, analysis of variance, and linear regression. Building up datasets, preparing datasets for analysis, conducting statistical analysis, and interpreting results.

EDUC 401B. Mini Courses in Methodology: Stata. 1 Unit.
The computer as research tool. Statistical software Stata for data analysis, including t-tests, correlation, ANOVA, and multivariate linear regression.

EDUC 401C. Data Analysis Examples Using R. 1 Unit.
We will do basic and intermediate level data analysis examples, like those that students will have seen in their courses, in R. nExamples include: descriptive statistics and plots, group comparisons, correlation and regression, categorical variables, multilevel data. See http://web.stanford.edu/~rag/ed401/.

EDUC 401D. Multilevel Modeling Using R. 1 Unit.
Multilevel data analysis examples using R. Topics include: two-level nested data, growth curve modeling, generalized linear models for counts and categorical data, three-level analyses. For more information, see course website: http://web.stanford.edu/~rag/ed401d/.

EDUC 403X. Innovation for the 21st Century. 1 Unit.
This course provides an intellectual framework for understanding the revolution in digital learning. It has three broad themes: the evolving state of knowledge on digital learning; the roles of education in modern societies; and the digital transformation of modern life generally. The course will convene over three quarters. All three themes will be addressed during each quarter. Students may enroll for a single quarter and/or participate in all three quarters for the most comprehensive overview.

EDUC 404X. Topics in Brazilian Education: Public Policy and Innovation for the 21st Century. 1-2 Unit.
The objective of this seminar is to provide students from different backgrounds an opportunity to learn about current issues and debates on Brazilian education. The seminar will cover topics on the history of Brazilian education; an overview of current school reforms at the federal level; educational assessments; education and economic growth; educational equity; teacher labor market; technology and education; early childhood; and higher education to Brazil.
EDUC 405X. Teaching the Humanities. 3 Units.
This course, designed for graduate students in the humanities and education, explores approaches to teaching the humanities at both the secondary and collegiate levels, with a focus on the teaching of text, and how the humanities can help students develop the ability to read and think critically. The course explores purposes and pedagogical approaches for teaching humanities through a variety of texts and perspectives. The course is designed as an opportunity for doctoral students in the Humanities both to enrich their own teaching, and to broaden their understanding of professional teaching opportunities, including community college and secondary school teaching.

EDUC 406X. Perspectives on Teacher Learning and Lesson Study. 2-4 Units.
Seminar. Based on peer collaboration, lesson study helps to create professional communities among teachers and support their learning. Research literature, teacher thinking and beliefs, teacher professional development, and conceptual frameworks.

EDUC 407X. Lytics Seminar. 1-4 Unit.
This course is a survey of research methods with applications in online learning. The methods covered are very interdisciplinary, including an introduction to machine learning, text/discourse analysis, causal modeling, and psychometrics. Broader question in research methodology are also covered, including how to formulate a good research question, when to use qualitative or quantitative methods, and the relative merits of theory-driven confirmatory vs. exploratory research. The goal of this course is to support researchers in the online learning space and other fields in their research endeavors.

EDUC 409X. Managing to Outcomes in Education and Other Sectors. 2 Units.
Whether as students, taxpayers, or philanthropists, we share an interest that schools, government agencies, and nonprofit organizations effectively achieve their intended outcomes. This course asks how stakeholders and managers can assess these institutions' performance and commitment to continuous improvement. This seemingly tectonistic question is often the center of political controversy, as it is today in criticisms of the student assessments required by No Child Left Behind and of "value-added" assessments of teacher performance. Never mindful that performance management is a graveyard of good intentions, we will study the practical aspects of institutional change - including leadership, accountability, learning, and culture - that often account for the difference between success and failure. We start with the presumption that you can't manage what you can't measure, but managers can usually measure only proxies rather than ultimate outcomes. In addition to the inevitable slippage between the proxies and ultimate outcomes, there is a tension between using assessments for learning and improvement, on the one hand, and for accountability, incentives, and penalties, on the other. Moreover, people have incentives to "game" any performance evaluation system. We will examine the challenges of managing to outcomes in various contexts, focusing particularly on students' and teachers' performance, but also including the performance of selected government agencies (e.g., police and welfare departments), nonprofit organizations, and foundations. We will focus on the interconnections among strategic planning, performance budgeting, and performance management. We will also look at experiments with new funding vehicles that depend on measuring outcomes, such as social impact bonds, conditional cash transfers, and pay for performance schemes in healthcare and other sectors.

EDUC 411X. Early Childhood Education. 1-4 Unit.
This course addresses a broad set of topics that have implications for developmentally appropriate and effective early childhood education. It begins with children's social, emotional and cognitive development and issues related to poverty, culture and language. We will also examine research evidence on effective instruction for young children, evaluations of preschool interventions, and several current policy debates.

EDUC 412X. Organization Studies Research Workshop. 1-2 Unit.
For graduate students whose research is rooted in organization theory. Participants to present and receive feedback on their work including paper drafts, proposals and dissertation chapter. Sources include recent scholarship. May be repeated for credit.

EDUC 417. Research and Policy on Postsecondary Access. 3 Units.
The transition from high school to college. K-16 course focusing on high school preparation, college choice, remediation, pathways to college, and first-year adjustment. The role of educational policy in postsecondary access. Service Learning Course (certified by Haas Center).
Same as: EDUC 117

EDUC 419X. Academic Achievement of Language Minority Students. 3-5 Units.
Emphasis is on the current state of knowledge in the research literature and comparisons to students' experiences and observations in bilingual education, English as a second language, reading instruction, cultural issues in education, and research methods.

EDUC 421X. Powerful Ideas for Learning Sciences and Technology Design. 1-3 Unit.
This course is intended as a graduate level seminar that provides in-depth readings and discussions, Professor Roy Pea's professional reflections, and student essay-writing on topics examined in Dr. Pea's select publications and associated influential writings.

EDUC 424. Introduction to Research in Curriculum and Teacher Education. 2-5 Units.
Required for first-year CTE doctoral students. How to conceptualize, design, and interpret research. How to read, interpret, and critique research; formulate meaningful research questions; evaluate and conduct a literature review; and conceptualize a study. Readings include studies from different research paradigms. Required literature review in an area students expect to explore for their qualifying paper.

EDUC 425X. Advanced Topics in Research on Self and Stigma. 1-3 Unit.
This course focuses on the relevance of self, identity, and stigmatization to understanding and remedying social problems. A key focus will be on how interactions between the self-system and social systems (e.g., schools, workplaces, institutions) drive outcomes over time, including educational and economic inequality. More broadly, class discussion and readings will address a social psychological analysis of intervention and change.

This course-series brings together leading scholars with critically-acclaimed artists, local teachers, youth, and community organizations to consider the complex relationships between culture, knowledge, pedagogy and social justice. Participants will examine the cultural meaning of knowledge as "the 5th element" of Hip Hop Culture (in addition to MCing, DJing, graffiti, and dance) and how educators and cultural workers have leveraged this knowledge for social justice. Overall, participants will gain a strong theoretical knowledge of culturally relevant and culturally sustaining pedagogies and learn to apply this knowledge by engaging with guest artists, teachers, youth, and community youth arts organizations.
Same as: AFRICAAM 32, AMSTUD 32, CSRE 32A, EDUC 32X, TAPS 32

EDUC 437. Curricular Practical Training. 1 Unit.
"Curricular Practical Training" independent study sections specifically created for international students in F-1 Visa Status who wish to receive credit and to be paid for internships.
EDUC 445X. Entrepreneurial Approaches to Education Reform. 2 Units. (Same as STRAMGT 535) This course will investigate the ways in which entrepreneurs have and could transform K-12 public schooling in the United States, a $650 billion dollar industry that has a direct and long-term effect on the nation's economy, democracy and culture. We will explore how human capital solutions, new schools, and technology products can all dramatically improve student learning and solve pain points. We will study a variety of ways to evaluate the efficacy, scalability, and financial sustainability of entrepreneurial enterprises serving students, families, educators and administrators in public education. The course will feature for-profit, not-for-profit, as well as double-bottom-line organizations. This course is suitable for students aspiring to be entrepreneurs, leaders in entrepreneurial organizations, leaders in educational organizations, donors or investors. Gloria Lee is a serial education entrepreneur who co-founded Aspire Public Schools, Teaching Channel, and Yu Ming Charter School. She is currently Chief Operating Officer at NewSchools Venture Fund. This course was designed to be taken in tandem with STRAMGT 537: Leading Change in Public Education and the courses will be highly complementary in approach.

EDUC 447X. Leading Change in Public Education. 2 Units. (Same as STRAMGT 537) American public education is in crisis. What will it take to get it back on track? As in all large-scale enterprises in need of transformative change, leadership matters greatly. This course focuses on what it takes from a strategic and extremely practical perspective to lead change in public education at the systems level. We will meet some of the most exciting educational leaders in public education today and dissect their leadership styles, strategies, innovations and solutions. We will look for lessons from traditional U.S. districts, successful charter management organizations, and international perspectives to determine what it takes to be an effective leader in education reform. Students will debate the strategies and efficacy of how different leaders approached systems-level change, and will form their own working hypotheses of what is needed to help transform the American education system. The course will end with a look at education fellowship programs and other ways for Stanford graduates to take on meaningful leadership roles in K-12 education reform. Dan Katzir worked for Bain & Company, Teach for America, and Sylvan Learning Systems before joining The Broad Foundation as its founding managing director. He is an experienced case study teacher and the editor of The Redesign of Urban School Systems (Harvard University Press, 2013). This course was designed to be taken in tandem with STRAMGT 535: Entrepreneurial Approaches to Education Reform and the courses will be highly complementary in approach.

EDUC 453. Doctoral Dissertation. 1-15 Unit. For doctoral students only. (all areas).

EDUC 465. Seminar in the Pedagogy of Teacher Education. 3 Units. For doctoral students interested in working in teacher education. Pedagogical approaches, including the use of modeling and simulations and hypermedia materials. Theoretical considerations of how teachers learn to teach.

EDUC 466. Doctoral Seminar in Curriculum Research. 2-4 Units. Required of all doctoral students in CTE, normally during their second year in the program. Students present their ideas regarding a dissertation or other research project, and prepare a short research proposal that often satisfies their second-year review.

EDUC 470. Practicum. 1-15 Unit. For advanced graduate students. (all areas).

EDUC 480. Directed Reading. 1-15 Unit. For advanced graduate students. (all areas).

EDUC 490. Directed Research. 1-15 Unit. For advanced graduate students. (all areas).

EDUC 493. Workshop in Design and Analysis of Comparative Studies. 1-3 Unit. A workshop for second-year and later students with data analysis or research design activities including dissertation planning or analysis. Readings and exercises developed around participating student research. Topics have included: multilevel data analysis, within-subjects designs, and implementation of matching methods for comparing non-equivalent groups. Various computing customs accommodated. See http://web.stanford.edu/~rag/ed493/. Prerequisite: intermediate statistical methods course work.

EDUC 496. Research in History and Social Science Education. 3-5 Units. For doctoral students. Literature on historical learning and teaching and corresponding social sciences research designs, assessment, and curriculum evaluation. Same as: HISTORY 464E

EDUC 801. TGR Project. 0 Units. For advanced graduate students. Instructor consent required. (all areas).

EDUC 802. TGR Dissertation. 0 Units. For advanced graduate students. Instructor consent required. (all areas).