

EDUCATION (EDUC)

EDUC 100A. EAST House Seminar: Current Issues and Debates in Education. 1 Unit.

EAST is the Education and Society Theme House at Stanford University. In Autumn quarter, faculty and other scholars from around the University present the latest issues, debates, and research in the field of Education. In Winter quarter, the theme is "Ten Careers in Education in Ten Weeks." Each week will feature a speaker, often Stanford alumni, from a different sector in education including school administration, arts education, information technology, special education, international development, student affairs, education consulting, and education policy. In Spring quarter, the seminar is a small group discussion of weekly readings on a focused topic in Education. Contact instructor for details. Notes: The seminar, offered by Zoom, is open to all students at Stanford with first-priority given to undergraduates, including those who are on a "flex term." Graduate students are allowed to enroll on a space-available basis. The seminar is repeatable for credit.

EDUC 100B. EAST House Seminar: Current Issues and Debates in Education. 1 Unit.

EAST is the Education and Society Theme House at Stanford University. In Autumn quarter, faculty and other scholars from around the University present the latest issues, debates, and research in the field of Education. In Winter quarter, the theme is "Ten Careers in Education in Ten Weeks." Each week will feature a speaker, often Stanford alumni, from a different sector in education including school administration, arts education, information technology, special education, international development, student affairs, education consulting, and education policy. In Spring quarter, the seminar is a small group discussion of weekly readings on a focused topic in Education. Contact instructor for details. Notes: The seminar, offered by Zoom, is open to all students at Stanford with first-priority given to undergraduates, including those who are on a "flex term." Graduate students are allowed to enroll on a space-available basis. The seminar is repeatable for credit.

EDUC 100C. EAST House Seminar: Readings on Education and Society. 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, the theme is "Ten Careers in Education in Ten Weeks." Each week will feature a speaker from a different sector in education including school administration, arts education, information technology, special education, international development, student affairs, education consulting, and education policy. In the spring, the seminar is a small group discussion of weekly readings on a focused topic in Education. Contact instructor for details. 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. 2-4 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 102I. International Education Policy Workshop. 2-4 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/IEAPA, but open to other students interested in international development or comparative public policy with instructor's consent. Attendance at first class required for enrollment.

Same as: EDUC 202I

EDUC 103A. Tutoring: Seeing a Child through Literacy. 3-4 Units.

This service-learning course presents the experience of learning to read and write through the eyes of a child. Participants will learn about theories and pedagogical approaches for teaching beginning reading and will engage in tutoring a child in grades K-3 via Zoom. Participants receive tutor training and learn about relevant research including the role of instruction in developing language and literacy, issues of access and equity, and bilingual literacy instruction. Practical topics include lesson planning and new technologies to address challenges of distance learning. Attendance is expected for online tutoring two times per week in addition to the weekly class meeting. The course 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 104. Introduction to the Profession of Teaching. 3 Units.

This course explores the profession of teaching through an internship in a local elementary or high school classroom. Students will observe and assist instruction for four hours per week. In class, students will read, discuss, and respond to theory and research related to teaching. The course is open to all undergraduates with an interest in the teaching profession; and it may be especially useful for students who are considering entering the profession of teaching and wish to spend time in a classroom. No prior experience in teaching is required.

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

Workshop.

EDUC 107. Education and Inequality: Big Data for Large-Scale Problems. 3-5 Units.

In this course, students will use data from the Stanford Education Data Archive (SEDA) to study the patterns, causes, consequences, and remedies of educational inequality in the US. SEDA is based on 200 million test score records, administrative data, and census data from every public school, school district, and community in the US. The course will include lectures, discussion, and small group research projects using SEDA and other data.

Same as: EDUC 207, SOC 107E, SOC 205

EDUC 108. The Changing Face of America. 4-5 Units.

This upper-division seminar will explore some of the most significant issues related to educational access and equity facing American society in the 21st century. Designed for students with significant leadership potential who have already studied these topics in lecture format, this seminar will focus on in-depth analysis of the impact of race on educational access and a variety of educational reform initiatives. Please submit a brief statement with "EDUC 108" in the subject line that details your reasons for applying and what leadership skills, experience, and perspectives you would contribute to the course to: Ginny Smith (gsmith@law.stanford.edu) and Wilson Tong (wtong@commonsense.org). The deadline is rolling. Same as: CSRE 108X, POLISCI 226A

EDUC 109. 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 309

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 112. Urban Education. 3-5 Units.

(Graduate students register for EDUC 212 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 212, SOC 129X, SOC 229X

EDUC 113N. Mix | Remix | Mixtape: Writing and Reading DJ Culture. 3 Units.

This course looks at the DJ as a crucial figure, a rhetor even, who influences both US and world culture and examines the DJ's practices as writing practices. From there we ask how other kinds of writing-public, academic, creative-can be informed by DJs and DJ culture. We will study specific practices like scratching, remixing, and the mixtape as well as different approaches and spaces in which DJs have shaped culture, from disco to Hip Hop to world music, from radio DJs to party DJs to beat-juggling and turntablism.

EDUC 114C. America Never was America to me: Race and Equity in US Public Schools. 1 Unit.

This cross-disciplinary course will use the 10-part docu-series "America to Me" to discuss the complexities of race and equity in US schools. The series follows a year in the life of a racially diverse, well-resourced high school outside Chicago, providing an in-depth look at the effects of race, equity, culture and privilege on educational opportunities, and offers insights into the teenage search for personal identity in today's climate. Two of the people featured in the series will be a part of the class, and after screening each episode, a Stanford professor will give a short talk inspired by the content of that episode. The talks will span several disciplines and theoretical perspectives, including Critical Race Theory, History, Psychology, Youth Development, Film Studies, Linguistics, and Teacher Education. Following each talk, students will engage in critical discussion around race and equity in education. Episode 10 will air during Final Exam week, but there will be no final exam. Same as: AFRICAAM 114C, CSRE 114C, EDUC 314C

EDUC 114N. Growing Up Bilingual. 3 Units.

This course is a Freshman Introductory Seminar that has as its purpose introducing students to the sociolinguistic study of bilingualism by focusing on bilingual communities in this country and on bilingual individuals who use two languages in their everyday lives. Much attention is given to the history, significance, and consequences of language contact in the United States. The course focuses on the experiences of long-term US minority populations as well as that of recent immigrants. Same as: CHILATST 14N, CSRE 14N

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

What is going on in 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 116. 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 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 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 117N. The Fourth "R": Religion and American Schools. 4 Units.

In this seminar, we will engage with historical, legal, and sociological texts, in order to trace the complicated relationship between church and state as it has played out in and around questions of education. Deciding what belongs in schools, what does not, whose interests are served in the process, and what the Constitution will allow are just some of the questions that will guide us. Through close readings of text and critical writing, we will develop alternative narratives about church-state issues that can make sense of everything from prayer in schools to civic education. This course must be taken for a minimum of 3 units and a letter grade to be eligible for Ways credit. Same as: AMSTUD 117N, RELIGST 13N

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 and vocational wayfinding, and innovating college outcomes, explored through the design thinking process. This seminar class incorporates small group discussion, in-class activities, field exercises, personal reflection, and individual coaching. Expect ideation tools, storytelling practices, prototyping to discover more about yourself and possible paths forward. The course concludes with creation of multiple versions of what college might look like and how to make those ideas reality. All enrolled and waitlisted students should attend class on day 1 for admission. Additional course information at <http://www.designingyourstanford.org>.
Same as: ME 104S

EDUC 119S. The History of Native Americans of California. 5 Units.

How the federal government placed education at the center of its Indian policy in second half of 19th century, subjecting Native Americans to programs designed to erase native cultures and American Indian responses to those programs. Topics include traditional Indian education, role of religious groups, Meriam Report, Navajo-Hopi Rehabilitation Act, Johnson-O'Malley Act, and public schools.
Same as: EDUC 429S, NATIVEAM 119S

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 120. Sociology of Science. 3-4 Units.

The sociology of science concerns the social structures and practices by which human beings interpret, use and create intellectual innovations. In particular we will explore the claim that scientific facts are socially constructed and ask whether such a characterization has limits. Course readings will concern the formation and decline of various thought communities, intellectual social movements, scientific disciplines, and broader research paradigms. A special focus will be placed on interdisciplinarity as we explore whether the collision of fields can result in new scientific advances. This course is suitable to advanced undergraduates and doctoral students.
Same as: EDUC 320, SOC 330, STS 200Q

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 122Q. Democracy in Crisis: Learning from the Past. 3 Units.

This January, an armed insurrection assaulted the U.S. Capital, trying to block the Electoral College affirmation of President Biden's election. For the past four years, American democracy has been in continual crisis. Bitter and differing views of what constitutes truth have resulted in a deeply polarized electoral process. The sharp increase in partisanship has crippled our ability as a nation to address and resolve the complex issues facing us. There are reasons to hope the current challenges will be overcome and the path of our democracy will be reset on a sound basis. But that will require a shift to constructive—rather than destructive—political conflict. This Sophomore Seminar will focus on U.S. democracy and will use a series of case studies of major events in our national history to explore what happened and why to American democracy at key pressure points. This historical exploration will shed light on how the current challenges facing American democracy might best be handled. (Cardinal Course certified by the Haas Center).
Same as: HISTORY 52Q, POLISCI 20Q

EDUC 123. 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.
Same as: AFRICAAM 130, CSRE 130, EDUC 322

EDUC 124. Collaborative Design and Research of Technology-integrated Curriculum. 3-4 Units.

The course introduces participatory design models for the development and research of educational materials through a studio-based, partnership driven, technology-integrated curriculum project. The special topic taken up in 2018 will be concussion education for youth. This is a studio experience working collaboratively with students, parents, and athletic coaches to design, field test, and make recommendations about learning activities and technology use for a complex curriculum that will engage immersive 360 3D technologies and social media. We will partner with TeachAids, an international nonprofit, on the curriculum development. Cardinal Course certified by the Haas Center.

EDUC 125. Exploring the US Public Education System. 3 Units.

This three-unit course is an introduction to understanding the US public education system from classrooms through board rooms. We will use five different perspectives or lenses: 1) politics and policy of compulsory education, 2) educational equity in classrooms and schools, 3) working conditions for school professionals, 4) families and communities, the public in public education, and 5) school and district leadership. Class members will choose topics from a list of contemporary issues to determine specific course content.

EDUC 126A. Ethics and Leadership in Public Service. 3-4 Units.

This course explores ethical questions that arise in public service work, as well as leadership theory and skills relevant to public service work. Through readings, discussions, in-class activities, assignments, and guest lectures, students will develop a foundation and vision for a future of ethical and effective service leadership. This course serves as a gateway for interested students to participate in the Haas Center's Public Service Leadership Program.
Same as: CSRE 126C, ETHICSOC 79, URBANST 126A

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 127. 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 128. 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 129. Boost Youth College Readiness through Effective Mathematics Tutoring. 2 Units.

Students will participate in one-on-one tutoring in mathematics with an elementary or middle school student who is enrolled in the East Palo Alto Tennis and Tutoring program (EPATT). They will attend class one evening a week, during which they will learn about the teaching of mathematics and effective tutoring strategies. They will also engage in ongoing reflection about the effectiveness of their tutoring and its impact on their tutee's college and career readiness.

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 Kuruapt 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. Participants 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 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 exert their full efforts within reasonable time limits to improve their competence.

EDUC 131. Raza Youth in Urban Schools: Mis-educating Chicana/o/x and Latina/o/x Communities. 3-5 Units.

This course focuses on the experiences of Chicana/o/x and Latina/o/x youth in U.S. public schools. We will connect historical patterns with contemporary issues in some of this nation's largest urban school districts in order to uncover the ways in which urban schools both reflect and reproduce structural inequalities that marginalize Chicana/o/x and Latina/o/x youth. As we consider the origins and persistence of educational inequalities in relation to longstanding forms of violence, domination, and subordination, we will also highlight histories of activism and resistance, including organized struggles for educational justice in Chicana/o/x and Latina/o/x communities. Issues to be addressed include school (de)segregation, standardized testing, educational tracking, unequal opportunities to learn, deficit perspectives, bilingualism and bilingual education, immigration and undocumented students, ethnic studies curricula, and culturally relevant/responsive/sustaining approaches to pedagogy. This course will invite students to visit and observe in urban school settings, interview key stakeholders (students, parents, teachers, and/or policy makers), and reflect on their own K-12 schooling experiences in relation to course themes.
Same as: CHILATST 131

EDUC 132. Music Education: Then, Now, and Then Again. 3 Units.

Explores the presence and impact of music across a variety of educational settings, with a focus on the historical function of music education, the current role of music education, and potential future models of music education.
Same as: MUSIC 132

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 135. 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 82 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 335, EPI 235, 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 137. The Role of Policy in Shaping U.S. Education: Early Childhood through High School. 3-5 Units.

We will explore current issues in preK-12 education policy including the expansion of early childhood programs, the effectiveness of accountability, the challenges facing teacher labor markets, and the financing of education. We discuss the role government and non-government agencies have (or should have) in making and evaluating education policies. In all discussions, we will call attention to the vast inequities that exist in our current education system. In this course, you will learn how to analyze and critique education policies.

EDUC 138. How College Works: An Introduction to the Sociology of Higher Education. 3-5 Units.

This course is designed for students who want to better understand the elite 4-year college system and how inequalities are both perpetuated and ameliorated by its structure and practices (focusing on gender, race, and first generation college students). This course will prepare students for their own undergraduate study at Stanford, using research and reflection. Focusing on the sociology of higher education, the course draws from research in education, sociology and gender studies. This course is designed for undergraduates, with a notable utility for first-year students, but anyone is welcome!

Same as: FEMGEN 138A

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 140. Honors Research. 1-5 Unit.

Provides opportunity for research in pursuit of senior honors theses.

EDUC 141. Counterstory in Literature and Education. 3 Units.

Counterstory is a method developed in critical legal studies that emerges out of the broad "narrative turn" in the humanities and social science. This course explores the value of this turn, especially for marginalized communities, and the use of counterstory as analysis, critique, and self-expression. Using an interdisciplinary approach, we examine counterstory as it has developed in critical theory, critical pedagogy, and critical race theory literatures, and explore it as a framework for liberation, cultural work, and spiritual exploration.

Same as: CSRE 141E, EDUC 341, LIFE 124

EDUC 141A. Counterstory Practice in Contemporary Literature and Media. 4 Units.

This seminar explores Counterstory, a methodology for exposing and challenging dominant cultural narratives about identities, events, and power. We examine counterstories in contemporary literature and media, examine the theory and craft behind them, and create original counterstories. You'll learn the method of counterstory not only to create your own, but also to share it with others in educational and other settings where stories are critical to social change—from journalism and documentary film to health, social justice, and community organizations. Note: this is a companion class to EDUC 141, sharing a number of lectures and activities, but designed for students interested in fulfilling the Writing & Rhetoric 2 requirement. Prerequisite: PWR 1.

EDUC 142. Foundational Course in Testing. 2-3 Units.

Examines basic ideas in standardized testing and the implications and consequences of testing (e.g., fairness, accountability, and the testing of diverse populations) from a social, critical perspective.

EDUC 143. Introduction to Data Science. 3-5 Units.

Social scientists can benefit greatly from utilizing new data sources like electronic administration records or digital communications, but they require tools and techniques to make sense of their scope and complexity. This course offers the opportunity to understand and apply popular data science techniques regarding data visualization, data reduction and data analysis.

Same as: EDUC 423, SOC 302

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 146. 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 148. Inglés Personal: Coaching Everyday Community English. 1-5 Unit.

This course is a 1 to 5 unit service learning course that prepares students to provide direct one-on-one service to adult English language learners in East Palo Alto and other surrounding communities. Students meet with and "coach" an adult learner on a weekly basis. Can be repeated for credit.

Same as: CHILATST 148, CSRE 148D

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 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.

EDUC 151. The Future of Information. 4 Units.

As information has a fascinating history (see HISTORY 5A), so it possesses a promising if concerning future. Through lecture, demonstration, online modules, and in-class web-work, this course will provide students with advanced strategies in (a) identifying sources and tools for advancing the quest for information; (b) assessing elements of trust, authority, and chicanery in the provision of information; (c) recognizing the economic and legal structures shaping information sources, services, and rights; and (d) discovering who is behind what information. With a focus on the info-worlds of journalism, learning, governance, students will acquire and practice the forensic skills and web savvy of fact-checkers and investigative reporters, activists and scholars. Here's a class set to determine the future course of information. The class will be a hybrid course, combining in-class delivery of materials, with a number of classes involving students taking online modules (at their convenience) that are designed to teach information literacy skills. Same as: STS 151

EDUC 155. 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 weekend 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 1/30, 2/6 & 2/13; Wednesday sessions will occur on 1/31, 2/7 & 2/14; Thursday sessions will occur on 2/1, 2/8 & 2/15. Weekend sections are on Saturday, 2/3 OR Sunday, 2/11 (Weekend sessions are longer and students only participate in one).

EDUC 157. Election 2020. 1 Unit.

(Also LAW 7101). We are living in extraordinary times. The historic convergence of social, economic, and public health challenges has profoundly impacted the lives of millions of Americans. In the midst of great uncertainty, the 2020 US presidential election will be perhaps the most important in our lifetimes. Will Donald J. Trump win reelection amid high unemployment, deep political polarization, and the COVID-19 pandemic that has upended life as we know it? Or will Joe Biden and a team of Democrats prevail? We will assemble a wide range of expert speakers-including preeminent political, business, foreign policy, and academic leaders-to explore these questions (and more) as we seek to cultivate a broad and informed view of this pivotal election.

Same as: CSRE 157B

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 170. Preparation for Independent Public Service Projects. 1 Unit.

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. Preschool Counts: Engaging Young Children in Math. 1-3 Unit.

This course is focused on concepts and theories of mathematics teaching and learning in Early Childhood Education and includes practical experience teaching aged 4-5 years using online methods. The recent distance learning context has led to new ways of interacting with children that will be explored in the course. Course participants will also investigate early math apps and current teaching technologies, as well as discuss examples of online teaching and learning in preschool and kindergarten contexts. Attendance is expected for online tutoring two times per week in addition to the weekly class meeting. The course may be repeated for credit.

EDUC 173. Gender and Higher Education: National and International Perspectives. 3-4 Units.

This course examines the ways in which higher education structures and policies interact with gender, gender identity, and other characteristics in the United States, around the world, and over time. Attention is paid to how changes in those structures and policies relate to access to, experiences in, and outcomes of higher education by gender. Students can expect 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 feminist scholarship and pedagogy.

Same as: EDUC 273, FEMGEN 173, SOC 173, SOC 273

EDUC 176. 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. 4 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. 4 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 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 178. 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 179E. Introduction to Chicanx/Latinx Studies. 5 Units.

This course draws on intersectional and interdisciplinary approaches to introduce students to the range of issues, experiences, and methodologies that form the foundation of Latina/o/x studies. By considering the relationship between the creation of "Latinx" and "American" identities, students will critically reconsider the borders that constitute the U.S. as a political and cultural formation. The course balances depth and breadth in its study of the variety of perspectives and experiences that come to be associated with U.S. Latinxs. Thus, we will analyze the histories of predominant U.S. Latinx sub-groups, such as Mexicans/Chicanxs and Puerto Ricans, while also incorporating considerations of the ways in which broader populations with ties to Central America, South America, and the Caribbean play crucial roles in constituting U.S. Latinx identities. Topics include the U.S./Mexico border and the borderlands; (im)migration and diaspora; literary and cultural traditions; music and expressive practices; labor and structural inequality; social movements; Latinx urbanism; gender and sexuality; political and economic shifts; and inter- and intra-group relations. Sources include a range of social science and humanities scholarship. This course will meet at Sequoia High School. Transportation will be provided.

Same as: CHILATST 180E, CSRE 180E

EDUC 180. Directed Reading in Education. 1-15 Unit.

For undergraduates and master's degree students. (All Areas).

EDUC 180P. Study Trip Course. 1 Unit.

Limited to students in the POLS MA Program.

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: CSRE 181, EDUC 381

EDUC 182. 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.

Same as: EDUC 382

EDUC 183. 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 257

EDUC 185. Master's Thesis. 1-15 Unit.

(all areas).

EDUC 186. Decolonizing the Indigenous Classroom. 3-5 Units.

Using Indigenous and decolonizing perspectives on education, this interdisciplinary course will examine interaction and language in cross-cultural educational situations, including language, literacy and interethnic communication as they relate to Indigenous American classrooms. Special attention will be paid to implications of social, cultural and linguistic diversity for educational practice, along with various strategies for bridging intercultural differences between schools and Native communities.

Same as: CSRE 116, CSRE 302, EDUC 286, NATIVEAM 116

EDUC 190. Directed Research in Education. 1-15 Unit.

For undergraduates and master's students. May be repeated for credit. (all areas).

EDUC 191. 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 296

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 192C. Interpersonal Learning and Leadership: An introduction to the RA role while away from campus. 2 Units.

"Interpersonal Learning & Leadership" explores research on leadership and the complex dynamics of our changing society. Participants will engage in course work intended to build skills relevant to the Resident Assistant/College Assistant position. Students will practice listening, question asking, self-reflection, risk taking, facilitating, conflict mediating and decision-making. They will explore how groups of people can come together for intellectual and interpersonal learning and growth within a complex society. Students will develop strategies to build community and facilitate challenging conversations while creating a safe environment for their peers to do the same.

EDUC 192D. Interpersonal Learning and Leadership: Working with Ethnically Diverse Communities. 2 Units.

"Interpersonal Learning & Leadership" explores research on leadership and the complex dynamics of our changing society. Participants will engage in course work intended to build skills relevant to the Ethnic Theme Associate position. Students will practice listening, question asking, self reflection, risk taking, facilitating, conflict mediating, decision-making and group leadership. They will explore how groups of people can come together for intellectual and interpersonal learning and growth within a complex society. Students will develop strategies to build community and facilitate challenging conversations while creating a safe environment for their peers to do the same.

EDUC 192E. Interpersonal Learning and Leadership: An Intro to the RA Role: Summer Session Staff Only. 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 193A. Listen Up! Core Peer Counseling Skills. 2 Units.

Listen Up! Introduces several skills intended to promote the development of active listening skills central to connecting and engaging with others more intentionally. The first four weeks of the course walk through a general framework for offering support in a peer helping role while also introducing a wide range of skills and techniques designed to assist with gathering information, identifying and processing emotional experiences, and facilitating problem solving. In addition to these skills being central to the Bridge counsel and assisting people in distress, they are easily applied to interactions of all varieties. We encourage anyone who aspires to be more effective and intentional communicating with others to take this course. The second half of the course shifts to offering additional information and skills relevant to peer counseling and other helping roles, both personal and professional. Students will be QPR-certified, learn about interpersonal conflict, and begin to consider self-care as a helper. At the end of this course we hope you are equip with skills to approach your personal and professional relationships with more awareness, intention, and empathy.

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.
Same as: CHILATST 193B

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: ASNAMST 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.

Peer Counseling at the Bridge serves as the second part of the required training to staff at the Bridge. Guest speakers present on mental health themes salient to working as a peer counselor at the Bridge. Topics covered include relationships, sexual assault, depression, eating disorders, gender & sexuality, diversity, anxiety, & grief. Although this course is designed for Bridge counselors, anyone interested in an overview of themes and topics related college student mental health would benefit from the information provided in this course.

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 194A. Frosh 101: Leader Training. 2 Units.

This course will prepare students to lead Frosh 101, a discussion style course designed to help first-year students with their transition to Stanford's dynamic campus. This course will expose students to inclusive teaching practices and research on the impact mental health, diversity and inclusion and sense of belonging have on the experiences of undergraduates. This course is the first of two courses that Frosh 101 leaders will take. Prerequisite: only students who have applied to be Frosh 101 section leaders can enroll.

EDUC 194B. Frosh 101: Curriculum Leader Training. 2 Units.

This course will provide Frosh 101 leaders with the content and facilitator training needed to lead a discussion style course designed to support first-year students in their transition to Stanford's dynamic campus. Prerequisite: EDUC 194A.

EDUC 195A. Origins and Legacies of Educational Progressivism: A Community Engaged Learning Course. 3-5 Units.

This course is about educational progressivism: its origins and competing factions, and the ways it continues to shape schooling today. This is a Cardinal Course, or community engaged learning course. Students will spend time each week in a local school in order to better understand how progressivism continues to influence the structure and practice of schooling, as well as the capacity of teachers and administrators to adopt, ignore, or repurpose progressive ideas to suit their needs.

EDUC 196. Senior Research in Public Service. 1-2 Unit.

Limited to seniors approved by their departments for honors thesis and admitted to the year-round Public Service Scholars Program sponsored by the Haas Center for Public Service. What standards in addition to those expected by the academy apply to research conducted as a form of public service? How can communities benefit from research? Theory and practice of research as a form of public service readings, thesis workshops, and public presentation of completed research. May be repeated for credit. Corequisite: 199.
Same as: URBANST 196

EDUC 197. Gender and Education in Global and Comparative Perspectives. 3-4 Units.

This course introduces students to theories and perspectives from the social sciences relevant to an understanding of the role of education in relation to structures of gender differentiation, hierarchy, and power. It familiarizes students with and enables them to critically evaluate research on the status of children, adolescents, and young adults around the world and their participation patterns in various sectors of society, particularly in education. Students have the opportunity to gain research skills by designing research proposals or to develop action plans on topics of their choosing related to gender and education from global and/or comparative perspectives.

Same as: FEMGEN 297, SOC 134

EDUC 198. Early Education Policy and Practice: A Global Perspective. 4 Units.

This course addresses social and educational policies affecting young children, focusing on France in comparison to the U.S. Values and beliefs about the role of the state versus parents will be considered in discussions related to federal and state/province policies, as well as other political, economic, and ideological factors that affect policies. We then consider what is known about children's social, emotional and cognitive development and the implications for early childhood policies and practices on children's development.

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, descriptive statistics, correlation, t-tests, one-way analysis of variance, and simple and multiple regression. All offerings of this course (whether meeting on Mon & Weds or Tues & Thurs) will be taught identically.

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 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. Class meetings will typically end around 1:50pm.

Same as: AMSTUD 201, HISTORY 258B

EDUC 202. Introduction to International and Comparative Education. 3 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. Enrollment in EDUC 202L is required to enroll in EDUC 202.

EDUC 202I. International Education Policy Workshop. 2-4 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/IEAPA, but open to other students interested in international development or comparative public policy with instructor's consent. Attendance at first class required for enrollment.

Same as: EDUC 102I

EDUC 202L. Introduction to International and Comparative Education Project Component. 1 Unit.

This course is a required project-based learning component intended only for students concurrently enrolled in EDUC 202 "Introduction to International and Comparative Education." Registration in EDUC 202 is required in order to enroll in EDUC 202L.

EDUC 203. Using International Test Results in Educational Research. 4 Units.

The course will analyze the origin and rationales given for various international tests, including FIMS, SIMS, TIMSS, PISA, the UNESCO tests in Latin America and Africa, and how they have been used in research and educational policy. The readings will cover the critiques leveled at such tests, the pros and cons about each type of test, the advantages and limitations of using international test data for policy research. The class will probably also do group projects utilizing data from the tests so students can familiarize themselves directly with the data.

EDUC 203A. Tutoring: Seeing a Child through Literacy. 3-4 Units.

This service-learning course presents the experience of learning to read and write through the eyes of a child. Participants will learn about theories and pedagogical approaches for teaching beginning reading and will engage in tutoring a child in grades K-3 via Zoom. Participants receive tutor training and learn about relevant research including the role of instruction in developing language and literacy, issues of access and equity, and bilingual literacy instruction. Practical topics include lesson planning and new technologies to address challenges of distance learning. Attendance is expected for online tutoring two times per week in addition to the weekly class meeting. The course 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: ETHICSOC 204

EDUC 205. Biosocial Medicine: The Social, Psychological, and Biological Determinants of Behavior and Wellbeing. 3 Units.

Explores how social forces, psychological influences, and biological systems combine to affect human behavior in early childhood, in the educational experience, and throughout the life course. Examines how behaviors are linked to well-being. Uses a flipped classroom model, in which a series of lectures are available for students to view on-line before class. In-class time then focuses on case studies from published research. Students must enroll in HUMBIO 65 for a letter grade to be eligible for Ways credit.

Same as: HUMBIO 65, SOMGEN 215

EDUC 206A. Applied Research Methods in International and Comparative Education I: Introduction. 1-3 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.

EDUC 206B. Applied Research Methods in International and Comparative Education II: Master's Paper Proposal. 1-3 Unit.

Required for master's students in International Comparative Education (ICE) and International Education Policy Analysis (IEPA). Development of research skills through theoretical and methodological issues in comparative and international education. Completion of a pilot study and preparation of a research proposal for the master's paper.

EDUC 206C. Applied Research Methods in ICE III: Data Collection and Analysis. 1-3 Unit.

Required for master's students in International Comparative Education (ICE) and International Education Policy Analysis (IEPA). Practice in data collection, analysis, and interpretation. Preparation of the first draft of the master's paper.

EDUC 206D. Applied Research Methods in International and Comparative Education IV: Master's Paper Workshop. 3 Units.

Required for master's students in International Comparative Education (ICE) and International Education Policy Analysis (IEPA). Reviews of students' research as they finalize the master's paper.

EDUC 207. Education and Inequality: Big Data for Large-Scale Problems. 3-5 Units.

In this course, students will use data from the Stanford Education Data Archive (SEDA) to study the patterns, causes, consequences, and remedies of educational inequality in the US. SEDA is based on 200 million test score records, administrative data, and census data from every public school, school district, and community in the US. The course will include lectures, discussion, and small group research projects using SEDA and other data.

Same as: EDUC 107, SOC 107E, SOC 205

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 210. Policy, Organization, and Leadership Studies Workshop. 1-5 Unit.

Required for POLS students. Scaffolds applied research for POLS field projects. Students may enroll for a total of up to eight (8) units across Winter and Spring quarters. Cardinal Course certified by the Haas Center.

EDUC 211. Beyond Bits and Atoms - Lab. 1-3 Unit.

This lab course is a hands-on introduction to the prototyping and fabrication of tangible, interactive technologies, with a special focus on learning and education. (No prior prototyping experience required.) It focuses on the design and prototyping of low-cost technologies that support learning in all contexts for a variety of diverse learners. You will be introduced to, and learn how to use state-of-the-art fabrication machines (3D printers, laser cutters, Go Go Boards, Sensors, etc.) to design educational toolkits, educational toys, science kits, and tangible user interfaces. The lab builds on the theoretical and evidence-based foundations explored in the EDUC 236 / CS 402 Practicum. Interested students must also register for either EDUC 236 or CS 402, complete the application at bit.ly/BBA-Winter2020 by January 4 at 5 p.m., and come to the first class at 8:30 a.m. in CERAS 108.

Same as: CS 402L

EDUC 212. Urban Education. 3-5 Units.

(Graduate students register for EDUC 212 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 112, 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 215. 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 reflective activities and conversations. An internship agreement will be required at the beginning 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, AMSTUD 216, CSRE 216X, HISTORY 255E

EDUC 217. Free Speech, Academic Freedom, and Democracy. 3 Units.

The course examines connected ideas of free speech, academic freedom, and democratic legitimacy that are still widely shared by many of us but have been subject to skeptical pressures both outside and inside the academy in recent years. The course explores the principled basis of these ideas, how well they might (or might not) be defended against skeptical challenge, and how they might be applied in particular controversies about the rights of students, instructors, and researchers. Same as: ETHICSOC 217X, PHIL 278C

EDUC 218. Topics in Cognition and Learning: Technology and Multitasking. 3 Units.

In our new media ecology, has affinity for social media and multitasking become addictive? Detrimental to learning and well-being? What can we learn from studies in the developmental cognitive sciences and cognitive neurosciences of reward, attention, memory & learning, motivation, stress, and self-regulation for tackling the behavioral design problems we face in crafting better socio-technical systems? 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. 2 Units.

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.

Same as: EDUC 120C, SOC 130, SOC 230

EDUC 220D. History of School Reform: Origins, Policies, Outcomes, and Explanations. 3-5 Units.

Strongly recommended 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 strongly recommended for POLS students pursuing K-12 leadership.

Same as: HISTORY 258E

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.

We explore current issues in preK-12 education policy including the expansion of early childhood programs, the effectiveness of accountability, the challenges facing teacher labor markets, and the financing of education. We discuss the role government and non-government agencies have (or should have) in making, implementing, and evaluating education policies. We will call attention to the vast inequities that exist in our current education system. Limited enrollment - course is designed for master's students. Undergraduates may enroll with instructor consent.

EDUC 222. Resource Allocation in Education. 4-5 Units.

This course covers economic principles and tools for informing resource allocation decisions in education. Students will review concepts related to educational goods and values; the costs and benefits of different levels and types of schooling; public versus private schooling; as well as adequacy and equity in education financing. Students will also learn about the use of educational production functions, teacher value-added estimation, cost effectiveness analysis, experimental program evaluation, systematic reviews, and causal chain analysis. Prerequisites: introductory statistics and regression analysis.

EDUC 223. Language Issues in Educational Research and Practice. 2 Units.

Provides the conceptual foundation for reasoning about language and linguistic groups as critical to making sound decisions in educational research and practice in a global economy and in multilingual societies.

EDUC 226. 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. (This course must be taken for a minimum of 3 units to satisfy a Ways requirement.)

Same as: AMSTUD 226X, CSRE 226X

EDUC 228E. Becoming Literate in School I. 1 Unit.

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. 4 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. 1 Unit.

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. 3 Units.

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. 2-3 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 229B. Learning Design and Technology Seminar. 1-3 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. 1-3 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 230. Learning Experience Design. 3 Units.

This course explores the design of tools for learning, leveraging scholarship and real-world projects to create prototypes of new digital learning tools. Students will engage in design activities to come up with prototypes of new learning tools for community partners. This year the course will focus on museums. Designing these tools will require project groups to gather and apply knowledge, evaluating options and synthesizing ideas in order to create an effective (and elegant!) solution. A community-based Cardinal Course. This course is designed to complement EDUC 281, Technology for Learners.

EDUC 231. Learning Religion: How People Acquire Religious Commitments. 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. May be repeat for credit.

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. Curiosity in Artificial Intelligence. 3 Units.

How do we design artificial systems that learn as we do early in life – as "scientists in the crib" who explore and experiment with our surroundings? How do we make AI "curious" so that it explores without explicit external feedback? Topics draw from cognitive science (intuitive physics and psychology, developmental differences), computational theory (active learning, optimal experiment design), and AI practice (self-supervised learning, deep reinforcement learning). Students present readings and complete both an introductory computational project (e.g. train a neural network on a self-supervised task) and a deeper-dive project in either cognitive science (e.g. design a novel human subject experiment) or AI (e.g. implement and test a curiosity variant in an RL environment). Prerequisites: python familiarity and practical data science (e.g. sklearn or R).

Same as: PSYCH 240A

EDUC 234A. Interactive and Embodied Learning. 3 Units.

Most successful machine learning algorithms of today use either carefully curated, human-labeled datasets, or large amounts of experience aimed at achieving well-defined goals within specific environments. In contrast, people learn through their agency: they interact with their environments, exploring and building complex mental models of their world so as to be able to flexibly adapt to a wide variety of tasks. One crucial next direction in artificial intelligence is to create artificial agents that learn in this flexible and robust way. Students will read and take turns presenting current works, and they will produce a proposal of a feasible next research direction. Prerequisites: CS229, CS231N, CS234 (or equivalent).

Same as: CS 422

EDUC 235. Workshop and Reading Group in Higher Education. 1-3 Unit.

This is an ongoing workshop and reading group for students and faculty engaged in research in higher education. Topics include but are not limited to postsecondary access; late adolescent and college student development; adult and lifelong learning; teaching and learning in postsecondary settings; leadership and management; federal, state, and institutional policy; student and organizational culture; and finance and economics. The focus of the workshop is to provide a faculty-led community of support for students, faculty, and others conducting research on higher education. Accordingly, the schedule of topics each quarter will be determined by participants in the workshop to flexibly focus on current research papers and projects. The workshop will provide a space for participants to present research ideas, workshop conceptual and methodological issues, give and receive feedback on conference paper proposals and drafts, and engage in focused discussion of papers and studies relevant to their work. It is open to master's and doctoral students, and with instructor approval, undergraduates working on theses and senior papers.

EDUC 236. Beyond Bits and Atoms: Designing Technological Tools. 3-4 Units.

This course is a practicum in the design of technology-enabled curricula and hands-on learning environments. It focuses on the theories, concepts, and practices necessary to design effective, low-cost educational technologies that support learning in all contexts for a variety of diverse learners. We will explore theories and design frameworks from constructivist and constructionist learning perspectives, as well as the lenses of critical pedagogy, Universal Design for Learning (UDL), and interaction design for children. The course will concretize theories, concepts, and practices in weekly presentations (including examples) from industry experts with significant backgrounds and proven expertise in designing successful, evidence-based, educational technology products. The Practicum provides the design foundation for EDUC 211 / CS 402 L, a hands-on lab focused on introductory prototyping and the fabrication of incipient interactive, educational technologies. (No prior prototyping experience required.) Interested students must also register for either EDUC 211 or CS 402L, complete the application at bit.ly/BBA-Winter2020 by January 4 at 5 p.m., and come to the first class at 8:30 a.m. in CERAS 108.

Same as: CS 402

EDUC 237. Learning, Making, Crafting, & Creating. 3-5 Units.

This is a hands-on course that introduces students to digital fabrication and 'maker' technologies used to develop prototypes of new objects and artifacts for learning. Technologies include 3D printers, electronic textiles, laser cutters, low-threshold programming environments, and micro controllers. Constructionist learning theory and current practices for design are covered. No prior technical or prototyping experience is required.

EDUC 238. Market Oriented Policies in Education. 3-4 Units.

Introducing market dynamics in education remains a highly controversial policy issue. In this course we will discuss the main ideas supporting the market approach in education and the key arguments against these policies; we will also review some of the evidence concerning the effects of market policies in education such as privatization, vouchers, and school choice; and finally, we will study several issues related to market oriented reforms, such as performance accountability, school segregation, and peer effects in education.

Same as: SOC 238

EDUC 239. Educating Young STEM Thinkers. 3-5 Units.

The course introduces students to the design thinking process, the national conversations about the future of STEM careers, and opportunities to work with middle school students and K-12 teachers in STEM-based after-school activities and intercession camps. The course is 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: ME 139, ME 231

EDUC 240. Adolescent Development and Learning. 3 Units.

How do adolescents develop their identities, manage their inner and outer worlds, and learn? Presuppositions: 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 241. Race, Justice, and Integration. 3 Units.

Recent philosophical research on injustice, race, and the ideal of racial integration.

Same as: AFRICAAM 241, PHIL 142, PHIL 242

EDUC 242. Workshop on Instrument Development for Assessment, Research or Evaluation Purposes I. 2 Units.

This course is designed with the belief that collecting information is a routine activity in which most researchers and educators are involved. Developing and improving instruments to gather information for descriptive, assessment, research, or evaluation purposes is a goal that unites all social sciences. Therefore, this course focuses on the technical skills required to develop, judge, and/or select quality instruments in diverse domains. The course will focus on your personal journey to develop or judge an instrument on something that is important for you.

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. 3 Units.

Student and teacher roles in developing a classroom community. Strategies for classroom management within a theoretical framework. STEP secondary only.

EDUC 244E. Building Classroom Communities. 2 Units.

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. Building Classroom Communities. 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.

This seminar will explore the impact and relative salience of racial/ethnic identity on select issues including: discrimination, social justice, mental health and academic performance. Theoretical perspectives on identity development will be reviewed, along with research on other social identity variables, such as social class, gender and regional identifications. New areas within this field such as the complexity of multiracial identity status and intersectional invisibility will also be discussed. Though the class will be rooted in psychology and psychological models of identity formation, no prior exposure to psychology is assumed and other disciplines-including cultural studies, feminist studies, and literature-will be incorporated into the course materials. Students will work with community partners to better understand the nuances of racial and ethnic identity development in different contexts. (Cardinal Course certified by the Haas Center).

Same as: AFRICAAM 245, CSRE 245, PSYCH 245A

EDUC 246A. Secondary Teaching Seminar. 1 Unit.

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. 1 Unit.

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. 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. (STEP).

EDUC 246D. Secondary Teaching Seminar. 1-8 Unit.

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. 1 Unit.

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. 3-5 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. 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 246H. 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 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 248. Language, Literacy, and Culture. 3-4 Units.

This field-based Cardinal Course will provide a unique opportunity to combine theory and practice in the study of language, literacy, and culture in educational settings. It is a collaborative partnership between Stanford (through the Haas Center for Public Service) and the Boys and Girls Club of the Peninsula. Stanford students will work directly with children enrolled in the Boys and Girls Club after-school program at a youth center in Redwood City.

Same as: CSRE 248X

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 250. What Do Students Really Know? The Risks of Modern Assessment. 3 Units.

This course focuses on helping students to advance their knowledge about theory, design and research issues related to assessing student learning for accountability and learning purposes. The course explores assessment topics with a critical perspective in two contexts: large-scale and classroom assessment. The course will help students become critical test consumers, better-informed assessment evaluators, and advocator of reliable, valid and fair assessments for culturally and linguistically diverse populations.

EDUC 250A. Inquiry and Measurement in Education. 3 Units.

Part of doctoral research core. The logic of scientific inquiry in education, including identification of research questions, selection of qualitative or quantitative research methods, design of research studies, measurement, and collection, analysis and interpretation of evidence.

EDUC 251. Topics in Epistemology and Education. 3 Units.

Epistemology and education are each concerned with knowledge. Epistemology has both positive and normative aspects: it asks what knowledge is and why it is valued. Education is concerned with methods and conditions for conveying knowledge. This course will focus on current topics in epistemology with a view toward their implications for education and pedagogy. We will explore contemporary work in social epistemology and virtue epistemology; multicultural and feminist perspectives; epistemic development, and the significance of artificial intelligence and digital technology for theories of knowledge.

EDUC 252. Introduction to Test Theory. 3 Units.

Concepts of reliability and validity; derivation and use of test scales and norms; mathematical models and procedures for test validation, scoring, and interpretation.

EDUC 252L. Introduction to Test Theory - Lab. 2 Units.

This course will cover the material from 252A in an applied setting. Emphasis will be in developing a capacity for applying and interpreting psychometrics techniques to real-world and simulated data.

EDUC 253. Foundations of Learning: From Ideas to Application. 4 Units.

Education is one of the most contested spaces in American society today. But its public commentators draw on old debates in the texts of Plato, Rousseau, DuBois, Dewey and others. This course offers an opportunity to uncover the roots of current conversations about education and engage the classic works of educational philosophy, history, and humanities. We will discuss the texts, understand their ideas, and apply them to making grounded contributions to contemporary debates, policy direction, and strategic plans.

EDUC 255. Mission and Money in Education. 3 Units.

Educational institutions are defined by their academic missions and their financial structures. When we refer to public/private or nonprofit/profit sectors, these are shorthand descriptions of the different capital structures that underlie educational organizations. Increasingly, these options - and novel variations on them - exist throughout the education enterprise: in K-12 schools, higher education, and ancillary service providers. In this course we will explore the relationships between academic goals and financial structures, with particular focus on management and decision making in educational organizations.

EDUC 256. Psychological and Educational Resilience Among Children and Youth. 4-5 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 257. 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 183

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 259. 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 260A. Applications of Causal Inference Methods. 2 Units.

See <http://rogosateaching.com/stat209/>. Application of potential outcomes formulation for causal inference to research settings including: mediation, compliance adjustments, time-1 time-2 designs, encouragement designs, heterogeneous treatment effects, aggregated data, instrumental variables, analysis of covariance regression adjustments, and implementations of matching methods. Prerequisite: STATS 209A/MSE 327 or other introduction to causal inference methods. (Formerly HRP 239).

Same as: EPI 239, STATS 209B

EDUC 260B. Advanced Statistical Methods for Observational Studies. 2-3 Units.

Design principles and statistical methods for observational studies. Topics include: matching methods, sensitivity analysis, and instrumental variables. 3 unit registration requires a small project and presentation. Computing is in R. Pre-requisites: EPI 261 and 262 or STATS 209 (EPI 239), or equivalent. See <http://rogosateaching.com/somgen290/>. Same as: CHPR 266, EPI 292, STATS 266

EDUC 261A. Distance Learning. 1 Unit.

Remote teaching and learning is not a new idea, however the popularity of these models has surged given the current COVID-19 pandemic. As students, parents, and teachers adapt to the dynamic nature of the current crisis, so too must our models of teaching and learning. This course is designed to begin the conversation around what synchronous and asynchronous remote teaching and learning can look like, and how considerations of equity and access are central to the realization of successful remote learning experiences.

EDUC 261B. Distance Learning. 1 Unit.

Remote teaching and learning is not a new idea, however the popularity of these models has surged given the current COVID-19 pandemic. As students, parents, and teachers adapt to the dynamic nature of the current crisis, so too must our models of teaching and learning. This course is designed to begin the conversation around what synchronous and asynchronous remote teaching and learning can look like, and how considerations of equity and access are central to the realization of successful remote learning experiences.

EDUC 261D. Computational Thinking Elective. 2-4 Units.

This course approaches computational thinking through the lens of teaching for social justice. We will examine how (and why) practitioners and schools can support students engagement with computational thinking practices through interdisciplinary means. Utilizing computational thinking as an approach to problem solving empowers individuals to recognize the influences technology brings to our society and the impact it has on ethics and equity. This course will develop students' understanding of computational thinking to engage in important ways with power, privilege, and identity. Participants must have theoretical and experiential background in teaching diverse students in K-12. Course Open to LDT & STEP MA students at the GSE only.

EDUC 261E. Curriculum and Instruction Elective in Data Science. 4 Units.

Data are all around us and it is becoming imperative for educators to teach students to develop greater data acumen. Topics covered include approaches to teaching about data and data science in the secondary school, including goals for instruction, teaching techniques, and instructional resources.

EDUC 262A. Curriculum and Instruction in English. 4 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. 4 Units.

Approaches to teaching English in the secondary school, including goals for instruction, teaching techniques, and methods of evaluation. STEP secondary only.

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 262D. Curriculum & Instruction Elective in English. 4 Units.

Methodology of science instruction: teaching for English and language arts; linking the goals of teaching English with interdisciplinary curricula; opportunities to develop teaching materials. For STEP Program students only.

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. 4 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 263D. Curriculum & Instruction Elective in Math. 4 Units.

Methodology of math instruction: teaching for mathematical thinking and reasoning; linking the goals of teaching math with literacy and interdisciplinary curricula; opportunities to develop teaching materials. For STEP Program students only.

EDUC 263E. Quantitative Reasoning in Mathematics I. 1 Unit.

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 cases 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. 4 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 cases 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. 1 Unit.

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 cases 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. 4 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 266. 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. 4 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 267D. Curriculum & Instruction Elective in Science. 4 Units.

Methodology of science instruction: teaching for scientific reasoning; linking the goals of teaching science with literacy and interdisciplinary curricula; opportunities to develop teaching materials. For STEP Program students only.

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. 3 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. 4 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 268D. Curriculum & Instruction Elective in History. 4 Units.

The methodology of history instruction: teaching for historical thinking and reasoning; linking the goals of teaching history with literacy and interdisciplinary curricula; opportunities to develop teaching materials. For STEP Program students only.

EDUC 268E. Elementary History and Social Science. 3-4 Units.

Teaching and learning history and social science in the elementary grades. What is included in the discipline and why it is important to teach. The development of historical thinking among children. How students learn and understand content in these disciplines.

EDUC 269. 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 178

EDUC 271. Education Policy in the United States. 3 Units.

(Same as GSBGEN 347) 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.

EDUC 272. 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. 3-4 Units.

This course examines the ways in which higher education structures and policies interact with gender, gender identity, and other characteristics in the United States, around the world, and over time. Attention is paid to how changes in those structures and policies relate to access to, experiences in, and outcomes of higher education by gender. Students can expect 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 feminist scholarship and pedagogy.

Same as: EDUC 173, FEMGEN 173, SOC 173, SOC 273

EDUC 274. 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 275. Leading Change in Schools. 3-4 Units.

This course explores organizational conditions conducive to planned change that can lead to school improvement. Particular attention is given to the plurality of leadership roles in change efforts. Intended primarily for master's students who have had some past experience working in or with schools.

EDUC 276. Classroom Assessment. 3 Units.

This course focuses on helping students to advance their knowledge about theory, design, and research issues related to assessing student learning in the classroom context. Students in this course will develop the basic conceptual and technical knowledge about assessment development and evaluation in the context of instructional units.

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 Program 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 279. 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. Plotting 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 280. 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: ENGR 295, MED 270, PHYSICS 295, VPTL 280

EDUC 281. 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 approaches to designing tools for learning, the theories behind them, and the research that tests their effectiveness. Strong focus on evaluating new tools for specific learners and subjects. Space is limited. Priority is given to master's students in the LDT Master's Program. To learn about the design of digital tools for learning, we recommend taking this course together with EDUC 230, Learning Experience Design.

EDUC 282. 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. 1 Unit.

(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 284A. Designing Equitable Groupwork. 1 Unit.

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 284B. Designing Equitable Groupwork. 1-2 Unit.

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 285A. Supporting Students with Special Needs. 4 Units.

For STEP Secondary 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 285B. Supporting Students with Special Needs. 2 Units.

For STEP Secondary 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 285C. Supporting Students with Special Needs. 3 Units.

For STEP Elementary 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 285D. Supporting Students with Special Needs. 3 Units.

For STEP elementary 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 286. Decolonizing the Indigenous Classroom. 3-5 Units.

Using Indigenous and decolonizing perspectives on education, this interdisciplinary course will examine interaction and language in cross-cultural educational situations, including language, literacy and interethnic communication as they relate to Indigenous American classrooms. Special attention will be paid to implications of social, cultural and linguistic diversity for educational practice, along with various strategies for bridging intercultural differences between schools and Native communities.

Same as: CSRE 116, CSRE 302, EDUC 186, NATIVEAM 116

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 287. 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.

This is an introductory course in organizational behavior intended primarily for master's students, delivered in a blended format. The course is applicable to a wide range of organizational settings, but pays particular attention to studies of schools, universities, nonprofit organizations, and social movements. The course has three goals: to explore a variety of organizational contexts; to investigate different theoretical approaches that elucidate these contexts; and to provide students different ways of "seeing" and managing organizations.

EDUC 289. The Centrality of Literacies in Teaching and Learning. 2 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 292. Academic Writing in Graduate Education. 2-4 Units.

In this workshop style course, you will learn principles for effective writing in graduate education and beyond. Beginning with consideration of the inherited and cultivated traditions informing your writing practices, you will examine the processes that best support your development as a writer; apply key rhetorical principles to your own writing and analyze those principles at work in other people's prose; practice writing about texts for a variety of purposes; and use feedback to revise your writing for both disciplinary-specific and public audiences. Master's students who are drafting a thesis and doctoral students who are working on qualifying papers or dissertations are especially encouraged to enroll.

EDUC 293. 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: AMSTUD 293, RELIGST 234X

EDUC 294. 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. Entrepreneurship and Innovation in Education Technology Seminar. 2 Units.

The last 15 months have created significant challenges and opportunities in education; there has never been a more pressing and urgent need in our history to foster entrepreneurship in education by leveraging new technologies. This course will help you develop the skills and strategies necessary to effectively create and evaluate educational services and education technology startups much like educators, entrepreneurs, philanthropists, and venture capital investors do. Some questions we will discuss include: How do entrepreneurs, educators, and VCs evaluate and grow successful education and edtech startups? Why do most startups in edtech fail, and what are the key ingredients for success, especially in today's challenging times? What does it take to get venture capital financing in edtech? Each week will feature a different edtech entrepreneur as a guest speaker; these leaders hail from a variety of innovative for-profit and non-profit education technology startups. As we hear from the speakers, we'll evaluate all aspects of their invention, particularly in the context of emerging distance learning and hybrid learning trends. A fundamental question we'll explore in this course is how educators and technologists can better collaborate to leverage the scale and impact of technology to improve educational equity and access. This course will be taught online through weekly synchronous sessions; attendance at each session is required. The maximum capacity is 40 students. Juniors, Seniors and graduate students of all Stanford schools are welcome. Syllabus can be viewed here: https://docs.google.com/document/d/1fQoF0eZZpyWjgl-8UjYkGuG9bVqL754VJ6XJ_UtiPZg/edit#heading=h.fupfk9p8fc4w.

EDUC 296. 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 191

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 299A. Equity and Schooling. 1 Unit.

(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. Enrollment restricted to students in the STEP Program only. (STEP).

EDUC 299B. Equity and Schooling. 4 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. Enrollment restricted to students in the STEP Program only. (STEP).

EDUC 301. Workshop on Race, Ethnicity, and Language in Schools. 1-4 Unit.

The Workshop on Race, Ethnicity, and Language in Schools is a new School of Education initiative that examines the profound and enduring relationships between race, ethnicity, and language in education in the U.S. and elsewhere. The seminar brings together an interdisciplinary group of leading scholars and graduate students in language in education to address the role of race and ethnicity in a host of complex and controversial language educational issues that cut across the areas of practice, policy, and pedagogy.

EDUC 302. Behavior Design: Clubhouse for Helping People with Good Habits & Behavior Change. 3 Units.

For 2020, I've decided to focus my class on changing behavior to meet the challenges posed by COVID-19. I will teach my models and methods of Behavior Design, and together we will apply this to combatting the various challenges COVID-19 has created. Yes, we will work on interventions to directly slow the spread of COVID-19. In addition, we will try to tackle other issues that stem from this global pandemic such as loneliness, anxiety, hoarding, nurse burnout, and more. Students must apply to join this course. For more information about the course and how to apply, go here: bit.ly/educ-302-course-brief.

EDUC 303. 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. Critical Theory and Pedagogy. 1-5 Unit.

The course samples the work of Critical Theory, proper, critical theory more generally, and critical pedagogy in the schools, as it draws on the educational consequences of a school of thought. The project of critical theory is examined in light of the curricular applications that it has inspired and the scholarly implications of studying education in this seemingly critical theoretical manner. Students will evaluate a particular curricular point of application of these related theoretical developments. Course may be repeated 4 times.

EDUC 305. A Political Economy of the Mind. 3-4 Units.

This course seeks categories and procedures for the appreciation, description, analysis, and reorganization of people in difficult circumstances. Examples from the history of fiction and classic political economy are used to explore the strengths and weaknesses of various approaches. In depth attention to individual lives and daily struggles give fiction and economic theory more appropriately positive views of people without the advantages of schooling than most educational research. Readings include fiction by Defoe, Austen, Dickens, Hurston, and Morrison and economic visions from Smith, Marx, Veblen, Keynes, and Galbraith.

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. Global Education Policy & Organization. 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.

Same as: PUBLPOL 316

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 307. 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 308. Assessment Development, Adaptation, and Review. 3 Units.

Offers a critical perspective for examining current practices concerning the development, adaptation, and review of assessment instruments in state, national, and international assessment contexts.

EDUC 309. 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 109

EDUC 30N. The Science of Diverse Communities. 3 Units.

This course is an exploration. Most generally, its aim is to identify distinguishing features of good diverse communities and articulate them well enough to offer principles or guidelines for how to design and manage such communities - all with a particular focus on educational communities like schools, universities, academic disciplines, etc., but with the hope that such principles might generalize to other kinds of organizations and the broader society. The readings range from those on the origins of human communities and social identities to those on intergroup trust building. They also aim to embed our discussions in the major diversity issues of the day, or example, what's in the news about campus life. Thus the course has a practical purpose: to develop testable ideas for improving the comfort level, fairness and goodness-for-all of identity diverse communities—especially in educational settings. The course also has a basic science purpose: to explore the psychological significance of community. Is there a psychological need for community? Is there something about a need for community that can't be reduced to other needs, for example, for a gender, racial or sexual-orientation identity? How strong is the need for community against other needs? What kinds of human groupings can satisfy it? In meeting this need, can membership in one community substitute for membership in others? What do people need from communities in order to thrive in them? Do strong diverse communities dampen intergroup biases? Can strong community loyalty mitigate identity tensions within communities? Such questions, the hope is, will help us develop a more systematic understanding of the challenges and opportunities inherent in diverse human communities.

Same as: CSRE 30N, PSYCH 30N, SOC 179N

EDUC 310. Sociology of Education. 3-5 Units.

Seminar. Key sociological theories and empirical studies of the relationship between education and other major social institutions, focusing on drivers of educational change, the organizational infrastructures of education, and the implication of education in processes of social stratification. Targeted to doctoral students.

Same as: SOC 332

EDUC 311. Research Workshop in International Education. 1 Unit.

International Education Initiative (IEI) is a cross-campus initiative to promote greater collaboration around research in international education at Stanford. It is designed to help students conduct higher quality research in international education and gain wide exposure to the international education research community. Students will have the chance to engage with invited speakers from outside Stanford, present and get feedback about their own research, and learn new methodological tools.

EDUC 312. Relational Sociology. 4 Units.

Conversations, social relationships and social networks are the core features of social life. In this course we explore how conversations, relationships, and social networks not only have their own unique and independent characteristics, but how they shape one another and come to characterize many of the settings we enter and live in. As such, students will be introduced to theories and research methodologies concerning social interaction, social relationships, and social networks, as well as descriptions of how these research strands interrelate to form a larger relational sociology that can be employed to characterize a variety of social phenomenon. This course is suitable to advanced undergraduates and doctoral students.

Same as: SOC 224B

EDUC 313. 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 314. Funkentelechy: Technologies, Social Justice and Black Vernacular Cultures. 5 Units.

From texts to techné, from artifacts to discourses on science and technology, this course is an examination of how Black people in this society have engaged with the mutually constitutive relationships that endure between humans and technologies. We will focus on these engagements in vernacular cultural spaces, from storytelling traditions to music and move to ways academic and aesthetic movements have imagined these relationships. Finally, we will consider the implications for work with technologies in both school and community contexts for work in the pursuit of social and racial justice.

Same as: AFRICAAM 200N, STS 200N

EDUC 314C. America Never was America to me: Race and Equity in US Public Schools. 1 Unit.

This cross-disciplinary course will use the 10-part docu-series "America to Me" to discuss the complexities of race and equity in US schools. The series follows a year in the life of a racially diverse, well-resourced high school outside Chicago, providing an in-depth look at the effects of race, equity, culture and privilege on educational opportunities, and offers insights into the teenage search for personal identity in today's climate. Two of the people featured in the series will be a part of the class, and after screening each episode, a Stanford professor will give a short talk inspired by the content of that episode. The talks will span several disciplines and theoretical perspectives, including Critical Race Theory, History, Psychology, Youth Development, Film Studies, Linguistics, and Teacher Education. Following each talk, students will engage in critical discussion around race and equity in education. Episode 10 will air during Final Exam week, but there will be no final exam.

Same as: AFRICAAM 114C, CSRE 114C, EDUC 114C

EDUC 316. Social Network Methods. 3-5 Units.

Introduction to social network theory, methods, and research applications in sociology. Network concepts of interactionist (balance, cohesion, centrality) and structuralist (structural equivalence, roles, duality) traditions are defined and applied to topics in small groups, social movements, organizations, communities. Students apply these techniques to data on schools and classrooms.

Same as: SOC 369

EDUC 317. Computational Sociology. 1-2 Unit.

Yearlong workshop where doctoral students are encouraged to collaborate with peers and faculty who share an interest in employing computational techniques in the pursuit of researching social network dynamics, text analysis, histories, and theories of action that help explain 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 318. 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 319. Research on Teaching. 1-4 Unit.

Introduction and historical perspective to theory, methods, and substantive findings of research on teaching.

EDUC 32. The 5th Element: Hip Hop Knowledge, Pedagogy, and Social Justice. 1-5 Unit.

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 432, TAPS 32

EDUC 320. Sociology of Science. 3-4 Units.

The sociology of science concerns the social structures and practices by which human beings interpret, use and create intellectual innovations. In particular we will explore the claim that scientific facts are socially constructed and ask whether such a characterization has limits. Course readings will concern the formation and decline of various thought communities, intellectual social movements, scientific disciplines, and broader research paradigms. A special focus will be placed on interdisciplinarity as we explore whether the collision of fields can result in new scientific advances. This course is suitable to advanced undergraduates and doctoral students.

Same as: EDUC 120, SOC 330, STS 200Q

EDUC 321. Nonprofits, Philanthropy & Society. 3-4 Units.

Over the past several decades nonprofit organizations have become increasingly central entities in society, and with this growing status and importance their roles are increasingly complex. We consider the social, political and economic dynamics of philanthropy and the nonprofit sector, focusing mainly (but not exclusively) on the US. The class is best suited for graduate students looking for an advanced analytic understanding of the sector and those wishing to conduct research in the field; it is not intended to provide training in nonprofit management.

Same as: PUBLPOL 321, SOC 321

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.

Same as: AFRICAAM 130, CSRE 130, EDUC 123

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 324. 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. Advanced Regression Analysis. 3-5 Units.

Social science researchers often deal with complex data and research questions that traditional statistics models like linear regression cannot adequately address. This course offers the opportunity to understand and apply two widely used types of advanced regression analysis that allow the examination of 1) multilevel data structures (multilevel models) and 2) multivariate research questions (structural equation models).

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 329. Seminar on Teacher Professional Development. 1-4 Unit.

Theories, principles, design, and practices of professional development. Topics include: pedagogies of professional development; design principles for transformative professional development; frameworks and processes to support teacher learning; research on professional development processes and outcomes; and policy issues. Optional practicum in subsequent terms in which course participants are able to offer a professional development opportunity to practicing teachers through the Center to Support Excellence in Teaching.

EDUC 330. 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.

Same as: EARTHSYS 332

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 334. Strategic Educational Research and Organizational Reform Clinic. 4 Units.

(Same as STRAMGT 360). This is a two-quarter clinical course offered in the Winter and Spring Quarters that brings together upper-level graduate students in education, law, and business from Stanford to collaborate with their peers at other universities (Columbia University, Harvard University, University of Pennsylvania, University of Michigan) and provide strategic research and consulting to public education organizations. Participants engage in a rigorous and rewarding learning experience, including:

- (i) An intensive seminar in the design, leadership and management, and transformation of public school systems, charter management organizations, start-ups, and other K-12 public- and social-sector institutions;
- (ii) Comprehensive skills training in team-based problem solving, strategic policy research, managing multidimensional (operational, policy, legal) projects to specified outcomes in complex environments, client counseling, and effective communication; and
- (iii) A high-priority consulting project for a public education sector client (e.g., school district, state education agency, charter management organization, non-profit) designing and implementing solutions to a complex problem at the core of the organization's mission to improve the educational outcomes and life chances of children. The participant's team work will allow public agencies throughout the nation to receive relevant, timely, and high-quality research and advice on institutional reforms that otherwise may not receive the attention they deserve.

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 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 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 335. 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 82 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 135, EPI 235, 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 338. 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/Alaska Native 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, PSYCH 272

EDUC 341. Counterstory in Literature and Education. 3 Units.

Counterstory is a method developed in critical legal studies that emerges out of the broad "narrative turn" in the humanities and social science. This course explores the value of this turn, especially for marginalized communities, and the use of counterstory as analysis, critique, and self-expression. Using an interdisciplinary approach, we examine counterstory as it has developed in critical theory, critical pedagogy, and critical race theory literatures, and explore it as a framework for liberation, cultural work, and spiritual exploration.

Same as: CSRE 141E, EDUC 141, LIFE 124

EDUC 342. Child Development and New Technologies. 3 Units.

Focus is on the experiences computing 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 343A. 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 343B. Practicum for fellows in the Stanford Preparing Future Professors Program. 1-2 Unit.

Nine weekly one-hour and fifty-minute sessions consisting of discussions of: (1) the previous week's mentoring institutions' shadowing experiences and (2) readings related to session themes.

EDUC 343C. Preparing for Faculty Careers. 1 Unit.

For graduate students and postdoctoral fellows from all disciplines who are considering a faculty career of any type and at any of a broad range of institutions. Numbers are limited and so whether formally registered (grad students) or attending as auditors (grad students or postdocs), all participants must commit to attending the entire course. Begins with a methodology to help determine if a faculty career is a good fit for the values, interests and abilities of each participant. Progresses to an exploration of different types of faculty roles and different institutional contexts (e.g., tenure-track vs. non-tenure-track; research-intensive vs. teaching-intensive; large vs. small; etc.). Discusses how to identify and land a faculty position. Ends with concrete tips on how to thrive in such a role. May be repeated for credit.

EDUC 345. 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. 3-5 Units.

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. 3-4 Units.

(Same as GSBGEN 348) 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 348. 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 349. Globalization and Higher Education. 3-4 Units.

This course examines the expansion, impact, and organization of higher education across the world. This course engages students with sociological theory and comparative research on global and national sources of influence on higher education developments, e.g. admissions criteria, curricular content, governance structure.. At the end of the course students should be able to compare and contrast developments across countries.

Same as: SOC 297

EDUC 350. 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 Research. 2 Units.

See <http://rogosateaching.com/stat222/>. 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. 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 352. Education Research Partnerships. 3-5 Units.

This course focuses on developing and sustaining effective education research partnerships. Partnerships are essential in creating new research projects, conducting field-based inquiry, and in implementing lessons from research projects. The course emphasizes the power of successful partnerships in improving education while exploring potential barriers to the formation and productivity of partnerships. During this course there will be explicit opportunities for students to develop the knowledge and capacities necessary for effective collaborative partnership research.

EDUC 352A. Introduction to Research-Practice Partnerships. 1-4 Unit.

This course is an introduction to education research-practice partnerships (RPPs). It examines the distinctive characteristics of education research-practice partnerships, how they differ from other efforts to improve education, and the types of questions that have been explored by RPPs. We will discuss different types of RPPs including design based implementation research, networked improvement communities, and community-engaged research. We will then focus in more depth on design-based implementation research (DBIR), examining the theories and methodologies used in DBIR, and projects that DBIR scholars have conducted.

EDUC 352B. Seminar in Developing Partnership Research. 1-2 Unit.

In this seminar, students develop the foundational knowledge and skills for effective partnership research. This seminar introduces students to the skills and knowledge necessary for starting and sustaining partnership research through readings and discussion. In the seminar, students develop a concept for partnership research they want to pursue and receive coaching and guidance on forming and nurturing a partnership research project.

EDUC 352C. Advanced Partnership Research. 1-2 Unit.

Partnership research requires a dynamic skill set involving negotiations, collaboration and communication as well as knowledge of the context you are working in and the dilemmas practice partners face in their day-to-day work. In this course, students will work with faculty, peers, and practice partners to learn how to navigate the challenging waters of partnership research and examine challenges in their own partnership research.

EDUC 353A. Problems in Measurement: Item Response Theory. 3 Units.

Study of the mathematical models used in psychological measurement with an emphasis on item response theory (IRT). We will examine various problems, including estimation of item parameters and person abilities, polytomous response models, and other issues. A key focus of this course will be on developing applied skills with the relevant models. Prerequisites included EDUC 252 (or consent of the instructor).

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 as it plays out in the pragmatic demands and tensions of site-level decision processes. School decision-making as a capacity-building challenge with focus on the complex interdependence of factors critical to school achievement and equity outcomes: governance, culture, curricula, resource alignment, inquiry, community engagement, and multi-cultural competence.

EDUC 355. 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 358. 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. Research on Science Teaching and Learning. 2-3 Units.

An exploration and review of the main programs of research that have been conducted in the field of science education, their findings and implications.

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 359E. Research on Mathematics Education. 2-4 Units.

Comparative and cultural perspectives on mathematics teaching and learning practices in the U.S. mathematics education in the context of cultural and educational systems. Teaching and learning as an interactive system, classroom discourse and math talk, teacher professional development, classroom culture and norms, educational equity, and issues of curriculum and standards.

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 360. Child Development in Contexts of Risk and Adversity. 3 Units.

This course provides an overview of theoretical and methodological issues pertaining to the study of child development in contexts of risk and adversity. We will begin by discussing different approaches to conceptualizing and measuring exposure to risk and adversity as well as conceptualizing and measuring children's adaptation. We will review different theoretical frameworks and empirical models that researchers employ to identify factors and processes that are associated with resilient or maladaptive developmental outcomes and trajectories over time. Finally, we will discuss how exemplar biological, family, school, cultural, and economic processes contribute to our understanding of children's adaptation and resilience. Throughout the course, we will discuss limitations of current research, directions for future research, and the translation of research findings for practitioners and policy makers. We will also consider equity issues relevant to studying adversity and adaptive functioning in diverse groups of children. Students will have the opportunity to apply the knowledge gained in the course to develop a research proposal that is aligned with their own interests and work.

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 362. 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 363. Stress Reactivity and Biological Sensitivity to Context. 3-4 Units.

This class is designed to introduce students to two biological systems: the autonomic nervous system (ANS) and the hypothalamic-pituitary-adrenal (HPA) axis that help children respond to and cope with daily challenges, stressors, and adversities. We will examine: (1) how the ANS and HPA systems respond to daily stressors, as well as experiences of poverty, maltreatment, and neglect; (2) how different indices of stress reactivity independently and jointly relate to various domains of competence and psychopathology; and (3) how stress reactivity moderates contextual influences on children's adaptation.

EDUC 364. Cognition and Learning. 3-4 Units.

This course focuses on helping students to advance their knowledge of cognitive psychology and what this field can offer to understand learning and educational practice. We will discuss how people learn, understand, and remember information, and why some people seem to be better at this than others. Topics discussed include the construction of knowledge, thinking about thinking, and the motivational and affective factors that shape thinking processes. Upon successful completion of this course, you will have a deeper understanding of how learners' knowledge, motivation, and development contribute to making meaning of information and to the actions they take to learn.

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 366. 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 366W. Semiotics for Ethnography. 1 Unit.

This workshop-style seminar will introduce students to a range of semiotic and linguistic anthropological approaches and tools for ethnographic analysis. A group of (linguistic) anthropologists from other universities will be invited to offer workshops, through which students will learn 1. how to teach semiotics in anthropology courses and 2. how to use semiotic concepts for their own research projects.

Same as: ANTHRO 366W

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, crosscultural 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. Course is designed to meet the interests of doctoral students. Enrollment of undergraduate seniors considered; course content not appropriate for freshman, sophomore, nor junior undergraduates.

EDUC 368. Cognitive Development in Childhood and Adolescence. 3 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 370. Parenting and Family Relationships in Childhood. 3 Units.

This course will focus on the relevance of parenting and family relationships for children's development. We will examine studies of: (1) how parental and child behaviors contribute to sensitivity, responsiveness, scaffolding, autonomy, and control within the dyad; (2) parents' role in socializing children's emotions and their ethnic/racial identity; and (3) parents' involvement in early education. We will discuss cultural and economic factors affecting our conceptualization, measurement, and interpretations of parents' behaviors and their interactions with their children.

EDUC 371. Social Psychology and Social Change. 2-3 Units.

The course is intended as 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, but priority for enrollment will be given to graduate students. In order to foster a vibrant, discussion-based class, enrollment will be capped at 20 students. Interested students should enroll in the class through simple enroll or axes. There will be an application process on the first day of class if there is overwhelming interest. Please contact the course TA, Isabelle Tay (isabelletay[at]stanford.edu), if you have any further questions.

Same as: PSYCH 265

EDUC 372. African American Child and Adolescent Mental Health: An Ecological Approach. 3-4 Units.

African American children and adolescents face a number of challenges (e.g., racism, discrimination, lack of access to resources, community violence) that can impact their mental health. Yet, they possess and utilize many strengths in the face of challenge and adversity. This seminar will explore the most salient historical, social, cultural, and ecological factors that influence the mental health and resilience of African American youth, with attention to contextual determinants that shape mental health. Applying an ecological systems approach, the course will focus on how families, schools, and communities are integral to youth's adjustment and well-being. By utilizing a culturally specific and context based lens in analyzing empirical, narrative, and visual content, students will better understand factors that can promote or inhibit the mental health and resilience of African American children and adolescents across development.

EDUC 373. Genetics and Society. 3 Units.

This course will focus on social science engagement with developments in genetic research, focusing on two key issues. First, social scientists are trying to figure out how genetic data can be used to help them better understand phenomena they have been long endeavoring to understand. Second, social scientists try to improve understanding of how social environments moderate, amplify, or attenuate genetic influences on outcomes.

Same as: SOC 232

EDUC 374. Philanthropy and Civil Society. 1-3 Unit.

Cross-listed with Law (LAW 7071), 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 pursuit of 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 3 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. For PhD students only.

Same as: MS&E 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. Higher Education Leadership Colloquium. 2-3 Units.

This course presents a series of speakers from Stanford and other higher education institutions who work at the middle to higher levels of administration. Speakers and topics are guided by student interest, but include a range from student affairs to finance. Sessions are intended to be interactive.

EDUC 377B. Impact: Strategic Leadership of Nonprofit Organizations and Social Ventures. 3 Units.

(Same as STRAMGT 368). This course seeks to provide a survey of the strategic, governance, and management issues facing a wide range of nonprofit organizations and their executive and board leaders, in the era of venture philanthropy and social entrepreneurship. The students will also be introduced to core managerial issues uniquely defined by this sector such as development/fundraising, investment management, performance management and nonprofit finance. The course also provides an overview of the sector, including its history and economics. Cases involve a range of nonprofits, from smaller, social entrepreneurial to larger, more traditional organizations, including education, social service, environment, health care, religion, NGO's and performing arts. In exploring these issues, this course reinforces the frameworks and concepts of strategic management introduced in the core first year courses. In addition to case discussions, the course employs role plays, study group exercises and many outsider speakers.

EDUC 377C. Philanthropy, Inclusivity and Leadership. 2 Units.

(Same as GSBGEN 581) A philanthropist is anyone who gives anything—time, expertise, networks, credibility, influence, dollars, experience—in any amount to create a better world. Regardless of one's age, background or profession, everyone has the potential to lead in a way that both tackles the complex social problems our interconnected world faces and creates greater inclusivity, access and impact. This demanding two-week, compressed course will provide passionate students with a brave space to develop and refine a plan for their own social change journey and amplify their potential to give, live and lead in a way that matters more. Using design thinking, students will challenge their preconceptions and wrestle with their social change approach, their privileged position as future Stanford graduates and philanthropy's role in society. Lectures and class discussions will inspire and prepare students to create social value with greater intentionality and humility. For the first class, students will submit a proposed social impact plan for their professional, philanthropic and civic lives. Over the course's six sessions, students will refine their plan, creating a formal theory of change that strategically utilizes their unique leadership platform and asset portfolio to advance opportunity and justice for a target population. Potential guest speakers include Darren Walker, President of the Ford Foundation; Justin Steele, Principal at Google.org; Crystal Hayling, Executive Director of the Libra Foundation; Rob Reich of Stanford PACS and Laura Muñoz Arnold, Co-Chair of the Laura and John Arnold Foundation.

EDUC 377E. Improving and Measuring Social Impact. 3 Units.

(Also GSBGEN 322). This course focuses on strategy and actionable measurement in government, non-profit organizations, market-based social enterprises, philanthropy, and impact investing. Actionable means that measurement is used by managers, investors, and other stakeholders in improving outcomes. The course explores the intersection of several ideas that seem to be in some tension with each other. (1) In preparing for battle I have always found that plans are useless, but planning is indispensable. (Dwight D. Eisenhower), (2) You can't manage what you can't measure, (3) Measurement is expensive and its results are often ignored, (4) Not everything that counts can be counted and not everything that can be counted counts (apocryphally attributed to Einstein), (5) The more any quantitative social indicator is used for decision making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor. (Campbell's Law). Specifically, the course will include: strategic planning, logic models, theories of change, monitoring, and evaluation; measuring the social impact of governments, non-governmental organizations, and market-based social enterprises, and asking how philanthropists and impact investors can assess their own impact; impact investing, performance contracting, and social impact bonds; and techniques for improving the behavior and accountability of individuals and organizations. These issues will be addressed mainly through business school case studies, which place the students in the position of CEOs, managers, and investors called upon to make major decisions. WARNING: The course has a fair amount of reading - not more than is common in undergraduate and graduate courses, but more than is typical for MBA courses in the GSB.

EDUC 377F. Disruptions in Education. 3 Units.

(Same as GSBGEN 345). This course will explore the contemporary higher education industry, focusing especially on the places where disruptions of all kinds present significant opportunities and challenges for investors, entrepreneurs, and the businesses that serve this huge global market, as well as for faculty, students, and higher education administrators. Using a variety of readings and case studies to better understand recent disruptions and the unbundling occurring across the post-secondary landscape, from outside and inside the academy, both for-profit and non-profit, the course will examine technology in teaching and learning; the future of the degree and alternatives to the traditional credential; accreditation; competency based education; debt and education financing models; investing in the education space; and tertiary products and platforms that serve the student services market. Guests will include higher education leaders and practitioners, as well as investors and entrepreneurs. Attendance at first class meeting is required.

EDUC 377G. Problem Solving for Social Change. 3 Units.

(Also GSBGEN 367). Stanford graduates will play important roles in solving many of today's and tomorrow's major societal problems – such as improving educational and health outcomes, conserving energy, and reducing global poverty – which call for actions by nonprofit, business, and hybrid organizations as well as governments. This course teaches skills and bodies of knowledge relevant to these roles through problems and case studies drawn from nonprofit organizations, for-profit social enterprises, and governments. Topics include designing, implementing, scaling, and evaluating social strategies; systems thinking; decision making under risk; psychological biases that adversely affect people's decisions; methods for influencing individuals' and organizations' behavior, ranging from incentives and penalties to "nudges;" human-centered design; corporate social responsibility; and pay-for-success programs. We will apply these concepts and tools to address an actual social problem facing Stanford University. (With the exception of several classes on strategy and evaluation, there is no substantial overlap with Paul Brest's and Mark Wolfson's course, Strategic Philanthropy and Impact Investing (GSBGEN 319), which has a different focus from this one.)

EDUC 377H. Diverse Leadership as an Imperative for Impact. 3 Units.

(Same as GSBGEN 377). Our society implicitly prizes a particular approach to leadership - but today's cross-sectoral, impact-oriented leader cannot afford to be restricted to a single approach. If we aspire to address challenges across social, economic, and political arenas, with highly charged moral implications and multiple stakeholders, we have an imperative to use all available tools by discovering, celebrating, and advancing diversity in leadership. In this course, we will: (1) study a range of effective leadership approaches; (2) develop broad, transportable skills and frameworks required to lead in any complex setting - business, public sector, nonprofit sector; (3) delve into leadership tradeoffs and tensions; (4) explore and understand our own values and tacit and explicit decision-making criteria; and (5) recognize barriers to diversity and tactics to address them. Guiding questions will include: How does the context shape the solution set? What does inspired and inspiring leadership look like? How do race/gender/other identities enter into the equation? How do I develop my own brand of leadership? We will examine contemporary leaders and controversies in education and elsewhere, draw upon timeless historical thinkers, enjoy the wisdom of guest speakers, and work intensively in small groups to highlight challenges, opportunities, and tradeoffs. By exploring a range of approaches and situations, we will strive for deeper understanding of ourselves and of the context to become a more capable, empathetic and effective leaders.

EDUC 378. Social and Emotional Learning: Conceptual & Measurement Issues. 3 Units.

Social and emotional learning (SEL) is an umbrella term for the malleable, non-academic skills that support educational outcomes, such as school readiness, classroom behaviors, and academic achievement. In this course, we will discuss theoretical frameworks, empirical studies, and measurement issues pertaining to the intrapersonal SEL skills: self-control/executive functions, emotion regulation, intrinsic motivation, persistence, and growth mindset. We will also discuss school districts' efforts to promote and assess students' SEL skills.

EDUC 379. Moral, Civic, and Environmental Education. 3 Units.

An examination of the conceptual foundations that underlie moral, civic, and environmental action in contemporary society, and the social, cognitive, and motivational capacities that make possible constructive participation. The course will discuss both in-school and beyond-schools ways in which young people can be educated for informed and constructive participation. Among the educational methods to be considered will be narrative treatments of exemplary figures in the moral, civic, and environmental domains.

Same as: ENVRES 255

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: CSRE 181, 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.

Same as: EDUC 182

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 387. 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 388A. Language Policies and Practices. 3 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 mechanics 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 389A. Race, Ethnicity, and Language: Racial, Ethnic, and Linguistic Formations. 3-5 Units.

Language, as a cultural resource for shaping our identities, is central to the concepts of race and ethnicity. This seminar explores the linguistic construction of race and ethnicity across a wide variety of contexts and communities. We begin with an examination of the concepts of race and ethnicity and what it means to be "doing race," both as scholarship and as part of our everyday lives. Throughout the course, we will take a comparative perspective and highlight how different racial/ethnic formations (Asian, Black, Latino, Native American, White, etc.) participate in similar, yet different, ways of drawing racial and ethnic distinctions. The seminar will draw heavily on scholarship in (linguistic) anthropology, sociolinguistics and education. We will explore how we talk and don't talk about race, how we both position ourselves and are positioned by others, how the way we talk can have real consequences on the trajectory of our lives, and how, despite this, we all participate in maintaining racial and ethnic hierarchies and inequality more generally, particularly in schools.
Same as: ANTHRO 320A, CSRE 389A, LINGUIST 253

EDUC 389B. Race, Ethnicity, and Language: Writing Race, Ethnicity, and Language in Ethnography. 3-4 Units.

This methods seminar focuses on developing ethnographic strategies for representing race, ethnicity, and language in writing without reproducing the stereotypes surrounding these categories and practices. In addition to reading various ethnographies, students conduct their own ethnographic research to test out the authors' contrasting approaches to data collection, analysis, and representation. The goal is for students to develop a rich ethnographic toolkit that will allow them to effectively represent the (re)production and (trans)formation of racial, ethnic, and linguistic phenomena.
Same as: ANTHRO 398B, LINGUIST 254

EDUC 389C. Race, Ethnicity, and Language: Pedagogical Possibilities. 3-4 Units.

This seminar explores the intersections of language and race/racism/racialization in the public schooling experiences of students of color. We will briefly trace the historical emergence of the related fields of sociolinguistics and linguistic anthropology, explore how each of these scholarly traditions approaches the study of language, and identify key points of overlap and tension between the two fields before considering recent examples of inter-disciplinary scholarship on language and race in urban schools. Issues to be addressed include language variation and change, language and identity, bilingualism and multilingualism, language ideologies, and classroom discourse. We will pay particular attention to the implications of relevant literature for teaching and learning in urban classrooms.
Same as: AFRICAAM 389C, CSRE 385

EDUC 390. Urban Schools, Social Policy, and the Gentrifying City. 3-4 Units.

This course is designed to help students develop a more sophisticated understanding of educational inequality in the contemporary U.S. city. This course will survey existing literature about the intersection of gentrification and urban schooling, focusing on policies and practices that gave rise to the current urban condition, theory and research about urban redevelopment, collateral consequences for schools and communities, and how these issues relate to the structure and governance of urban schools as well as to the geography of opportunity more broadly.
Same as: CSRE 291, URBANST 141A

EDUC 391. Engineering Education and Online Learning. 3 Units.

A project based introduction to web-based learning design. In this course we will explore the evidence and theory behind principles of learning design and game design thinking. In addition to gaining a broad understanding of the emerging field of the science and engineering of learning, students will experiment with a variety of educational technologies, pedagogical techniques, game design principles, and assessment methods. Over the course of the quarter, interdisciplinary teams will create a prototype or a functioning piece of educational technology.
Same as: ENGR 391

EDUC 392. Education for Liberation: A History of African American Education, 1800 to the Present. 3-5 Units.

This course examines discourses around education and freedom in African American educational thought from the 19th century to the present, using both primary sources and the works of current historians. The course pays particular attention to how the educational philosophies of different African American thinkers reflected their conceptions of what shape freedom might take in the American context, and the tension between educational outlooks that sought inclusion or integration versus those that prized self-determination. We will also be attentive to the ways in which age, gender, geography, class, and color worked to influence the pursuit and achievement of various African American educational visions. This will be a 3-5 credit course and meet as a seminar open both to graduate students and advanced undergraduates.
Same as: CSRE 292

EDUC 393. Proseminar: Education, Business, Politics. 3 Units.

Overview of the field of education for joint degree (M.B.A./M.A.) students.

EDUC 394. School and District Leadership to Support English Learners' Academic Achievement. 3-4 Units.

English learners (ELs) constitute nearly 10% of the U.S. K12 population. At some point in their careers, the majority of educators will have English learners in their schools and classrooms. This course is designed for students who are considering educational policy or leadership careers and are interested in learning about the legal framework and research base for the education of ELs. NOTE: This is online course where most of the work (readings, discussions, and assignments) will be completed by students working in pairs or in groups, online or face to face. There will be two in-person class meetings on campus at the assigned day and times, one in the third week of classes and one in the last. Course is variable units, but workload will not vary. PLEASE SEE IMPORTANT NOTE BELOW IN THE "Schedule for EDUC 394" LINK.

EDUC 395. The Hidden Curriculum of Scholarly Writing. 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 397A. Democracy and Education. 2-3 Units.

John Dewey's *Democracy and Education* may be the most comprehensive and influential book on educational theory and practice. Conceptualizing democracy and its implications for schooling is its central concern. We offer a close reading of Dewey's effort paired with Denis Phillips' recent chapter by chapter commentary on Dewey's book. A century after *Democracy and Education* in 1916 and the founding of Stanford's School of Education in 1917, Phillips' Companion invites a reexamination of American democracy and education today.

EDUC 398. Core Mechanics for Learning. 3 Units.

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. The course mixes basic theory, research methods, and application of learning principles.

EDUC 399A. Designing Surveys. 1-2 Unit.

This workshop/course is designed for students who are designing a survey to collect quantitative data for a research project. The workshop content draws on relevant cognitive processing theories and research related to development of good survey questions. In addition to some readings and a few mini 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 enrollment is limited to 12 students and may be repeated for credit.

EDUC 400A. 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 400B. Statistical Analysis in Education: Regression. 5 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 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.

Same as: SPSS

EDUC 401B. Mini Courses in Methodology: Stata. 1 Unit.

The goal of this course is to familiarize students with the Stata statistical software package for use in quantitative research. By the end of the course, students should be able to import and export data, clean and manage data, conduct standard statistical tests (e.g., correlation, t-test, regression), and produce a graph.

EDUC 401C. Data Analysis Examples Using R. 1 Unit.

We will do basic and intermediate level data analysis examples, likethose that students will have seen in their courses, in R.

Examplesinclude: descriptive statistics and plots, analysis of variance,ncorrelation and regression, categorical variables, multilevel data.nSee <http://rogosateaching.com/ed401/>.

EDUC 401D. Multilevel Modeling Using R. 1 Unit.

See <http://rogosateaching.com/stat196/> . Multilevel data analysis examples using R. Topics include: two-level nested data, growth curve modeling, generalized linear models for counts and categorical data, nonlinear models, three-level analyses.

Same as: STATS 196A

EDUC 402. Formative Assessment of Literacy Learning and Performance. 2 Units.

With the emergence of national standards and assessments, the role of classroom assessments has received diminished attention. Literacy acquisition - learning to read and write as facets of academic language - is critical through the grades and across content areas. This course will cover (1) the recent history of classroom assessment, (2) a conception of assessment as practical inquiry, (3) a review of performance-based assessment methods, and (4) practical implementation of the preceding ideas.

EDUC 403. Education's Digital Future. 1 Unit.

Digital technologies are rapidly evolving and reorganizing the way we play, learn, and work. Significant questions have emerged about how digital and networked information technologies might be both narrowing and widening gaps in access to learning opportunities. It is becoming clear that technology alone will not catalyze the forms of equity that are so essential for preparing young people and their families for a rapidly changing future. Instead we need to deeply rethink and intentionally redesign the social organizations and tools that provide learning opportunities (schools, workplaces, community organizations, libraries) and study these innovations at a regional as well as national level. In this course and public seminar, designed to foster new forms of collaboration and innovation, we will engage these questions through a series of invited conversations with a broad range of stakeholders including researchers, educators, and industry representatives. May be repeat for credit.

EDUC 404. 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 405. 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 406. 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 407. 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 questions 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 408. Social Interaction Analysis. 1-4 Unit.

This seminar will focus on foundations and methodic approaches to the study of social interaction.

EDUC 409. 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 technocratic 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 411. Early Childhood Education. 3-4 Units.

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 412. Workshop in Religion and Education. 1 Unit.

This 1-unit workshop will explore the intersection of religion and education across a variety of learning environments and demographics. It invites an ongoing conversation of the relationships between schools, congregations, religious bodies, learners, seekers, philanthropy, and public education. Advanced students and visiting scholars will have an opportunity to present their work for discussion. May be repeat for credit. Same as: RELIGST 333X

EDUC 413. Ethnographies of Religion: Education, Socialization, Indoctrination. 3-5 Units.

Religion has long been a central preoccupation for ethnographers interested in the formation and function of social groups. Much ethnography of religion focuses on rituals and practices of inscription - exploring the ways in which religious communities turn concepts into practices (and vice versa) that reinscribe members within an collective. These efforts take many forms, but they are, at their core, educational, insofar as they serve as an informal curriculum for the acquisition and rehearsal of theological, communal, ritual, textual, and embodied norms. This seminar will focus on the educational aspects central of ethnographic approaches to the study of religion, looking into and beyond schools.

EDUC 414. Play and Games. 3-4 Units.

Social life would be unimaginable without play and games. Students will be introduced to social theories of play and games; the history of games and their variation; readings concerned with how play and games affect interaction and socialization; how race and gender are enacted in and through play and games; how play and games relate to creativity and innovation; and how games can be designed for engrossment and the accomplishment of various tasks and learning goals. Course intended mainly for doctoral students, though masters and undergraduate students are welcome. This is a new course, so please expect collaboration with instructor and other students to shape the course content.

Same as: SOC 301

EDUC 416. Issues and Alternative Approaches in the Testing of English Language Learners. 2-3 Units.

This course is intended for future researchers, practitioners, and decision makers. It examines major challenges in the testing of English language learners (ELLs) from the perspective of validity and fairness. The course provides a critical review of current practices in large-scale assessment concerning ELLs in terms of three kinds of limitations: population misspecification, measurement error, and overgeneralization. The course also promotes creative thinking in the development of alternative views and practices in ELL testing.

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 419. 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 421. Powerful Ideas for Learning Sciences and Technology Design: Sociocultural Practices of the Blues. 3 Units.

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 421A. Powerful Ideas for Learning Sciences and Technology Design: Distributed Intel & Installation Theory. 3 Units.

This course is intended as a graduate level seminar that provides in-depth readings and discussions on Installation Theory (Lahlou, 2018). Installation theory (IT) is a fresh synthetic theory explaining how humans construct systems that support and format behavior. The three layers of the IT framework are affordances, embodied competences and social regulation. IT can be used to analyze behaviour, and as a theory of design for behavioral change. We will explore the applications of IT for analyzing, creating, and researching learning environment designs and associated learning processes and outcomes.

EDUC 422. Studying Expertise. 3-4 Units.

This course offers an overview of ways that psychologists and learning scientists characterize knowledge, learning, and expertise. We will look at general models of knowledge representation (e.g. as a set of scripts, as socially mediated, as embodied), and knowledge representation in specific domains (e.g. playing chess, solving math problems, waiting tables, or constructing literary interpretations), as well as in teaching. As a course project, you will build your own comparative study of expert and novice thinking in a domain that interests you and create an AERA style proposal and presentation to share findings.

EDUC 423. Introduction to Data Science. 3-5 Units.

Social scientists can benefit greatly from utilizing new data sources like electronic administration records or digital communications, but they require tools and techniques to make sense of their scope and complexity. This course offers the opportunity to understand and apply popular data science techniques regarding data visualization, data reduction and data analysis.

Same as: EDUC 143, SOC 302

EDUC 423A. Introduction to Data Science I: Data Processing. 3-4 Units.

Quantitative data require considerable work before they are ready to be analyzed: they are often messy, incomplete and potentially biased. This course is designed to help you thoughtfully collect, manage, clean and represent data so it can offer substantive information researchers can act upon. In our weekly sessions you will take a critical and reflective approach to these tasks and learn the technical skills needed to get your data into shape. Education and social science datasets will be our focus. Same as: SOC 302A

EDUC 423B. Introduction to Data Science II: Machine learning. 3-4 Units.

This course centers on the question of how you can use various data science techniques to understand social phenomena. Applied to education and social science topics, the course will introduce you to supervised and unsupervised machine learning algorithms, new data, and provide you the skills to thoughtfully evaluate and assess machine learning performance and implications.

Same as: SOC 302B

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 425. 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.

EDUC 426. Unleashing Personal Potential: Behavioral Science and Design Thinking Applied to Self. 4 Units.

This course facilitates the application of the methods, theories, and findings of behavioral science to students own lives and improvement projects. It does so by combining behavioral science with a design thinking approach. You will learn to identify your potential, navigate to achieve it, and stay resilient during the journey. Students will design their own action plans, define goals and prototype strategies to test them, in an iterative feedback cycle. Our course thus blends two intellectual streams that seldom intersect: behavioral science and design thinking. Same as: PSYCH 264

EDUC 427. History of the Curriculum. 3-5 Units.

Development of the school curriculum in historical context, from ancient notions rooted in religious traditions to present-day ideas about "blended curriculum," "problem-based learning," home schooling, and arguments about the contents of the Advanced Placement curriculum and recent "math wars" and "history wars." Focus will be on the core school subjects (history, civics, math, and science), with an emphasis on the explosion of curriculum development in the 1960s, such as Jerome Bruner's MACOS (Man-a-Course-of-Study), the "New Math," Biological Sciences Curriculum Study (BSCS), and Jerrald Zacharias's "New Physics." Contemporary developments will include topics such as the Afrocentric curriculum movement along with E.D. Hirsch's Core Knowledge curriculum. Focus will be on understanding the historical antecedents of contemporary trends.

EDUC 428. Intersectional Justice in Education Policy and Practice. 3-5 Units.

This 3-5-unit, graduate course is designed to explore intersectionality as a "method and a disposition, a heuristic and an analytic tool" (Carbado, Crenshaw, Mays, & Tomlinson, 2013, p. 11). To do this we explore the intellectual lineage of intersectional thought from its Black Feminist roots and trace it through its use today in education research. Within these tracings, we will delve into the (mis)uses, contestations, and iterations of intersectionality in theory and empirical research. At the heart of this course is an examination of how perceptions of and beliefs about a myriad of intertwining inequities conspire to create vectors of oppressions that land in multiply marginalized students' lives through the macrosociopolitical to the microinteractional. It interrogates the foundational ideological assumptions around culture, difference, deficit, and dis/ability in which education has traditionally been rooted. Students in the course will analyze the lineage and processes of intersectionality to understand how students at the intersections of multiple oppressions experience education within communities of practice that enact, reproduce, and resist policies and practices through their daily activities. Same as: AFRICAAM 428

EDUC 429. Reducing Health Disparities and Closing the Achievement Gap through Health Integration in Schools. 3 Units.

(HUMBIO students must enroll in HUMBIO 122E. Med/Graduate students must enroll in PEDS 229.) Health and education are inextricably linked. If kids aren't healthy, they won't realize their full potential in school. This is especially true for children living in poverty. This course proposes to: 1) examine the important relationship between children's health and their ability to learn in school as a way to reduce health disparities; 2) discuss pioneering efforts to identify and address manageable health barriers to learning by integrating health and education in school environments. Same as: HUMBIO 122E, PEDS 229

EDUC 429S. The History of Native Americans of California. 5 Units.

How the federal government placed education at the center of its Indian policy in second half of 19th century, subjecting Native Americans to programs designed to erase native cultures and American Indian responses to those programs. Topics include traditional Indian education, role of religious groups, Meriam Report, Navajo-Hopi Rehabilitation Act, Johnson-O'Malley Act, and public schools.

Same as: EDUC 119S, NATIVEAM 119S

EDUC 430A. Experimental Research Design and Analysis. 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 430B. Quasi-Experimental Research Design & Analysis. 3-5 Units.

This course surveys quantitative methods to make causal inferences in the absence of randomized experiment including the use of natural and quasi-experiments, instrumental variables, regression discontinuity, fixed effects estimators, and difference-in-differences. We emphasize the proper interpretation of these research designs and critical engagement with their key assumptions for applied researchers. Prerequisites: Prior training in multivariate regression (e.g., ECON 102B or the permission of the instructor).

Same as: SOC 258B

EDUC 430C. Using Data to Describe the World: Descriptive Social Science Research Techniques. 3-5 Units.

This course focuses on the skills needed to conduct theoretically-informed and policy-relevant descriptive social science. Students read recent examples of rigorous descriptive quantitative research that exemplifies the use of data to describe important phenomena related to educational and social inequality. The course will help develop skills necessary to conceptualize, operationalize, and communicate descriptive research, including techniques related to measurement and measurement error, data harmonization, data reduction, and visualization. Students develop a descriptive project during the course. Prerequisite: satisfactory completion of a course in multivariate regression.

Same as: SOC 258C

EDUC 431. Thinking and Learning with Data. 3 Units.

Graduate seminar covering research from statistics education and the nascent field of data science education. Topics include research on students' conceptions and difficulties with core statistical ideas, learning technologies to support learning about data, and new pedagogical designs for teaching about data in both formal and informal contexts. Intended for math education, science education, and learning sciences students. Emphasis is on K-12 age group.

EDUC 432. The 5th Element: Hip Hop Knowledge, Pedagogy, and Social Justice. 1-5 Unit.

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 32, TAPS 32

EDUC 433. Intersectional Qualitative Approaches. 3-5 Units.

This variable unit, graduate course is designed to explore intersectional analysis because intersectionality is a "method and a disposition, a heuristic and an analytic tool" (Carbado, Crenshaw, Mays, & Tomlinson, 2013, p. 11). This course engages the approaches and analyses possible within an intersectional theoretical framing by examining a wide range of interdisciplinary research methodologies and methods. We will study a myriad of innovative ways of doing intersectional scholarship and given the focus on robust methodological moves, this course will highlight questions of axiology of inquiry, analysis, and representation through an intersectional lens. Our class will investigate and create intersectional conceptual framing for designing and interpreting research. We will explore and develop qualitative or mixed-methods research data collection, analyses, holistic interpretation, and analytic writing from an intersectional perspective.

Same as: CSRE 433

EDUC 434. Seminar in Teacher Education: Issues of Pedagogy. 1-4 Unit.

This course explores issues of pedagogy in the preparation of teachers. While much has been written about reforming teacher education, less work examines how we actually teach people to teach. Since how we teach is also what we teach in teacher education, this lack of attention to pedagogy is curious. In this class, we will investigate pedagogical approaches used in teacher education.

EDUC 436. Interfaith Dialogue on Campus: Religion, Diversity, and Higher Education. 2-5 Units.

How are we to talk across religious and spiritual differences? What is the purpose of such dialogues? What do we hope to gain from them? How do such dialogues take shape on college campuses, and what do they indicate about how students cultivate spiritual, political, and civic commitments? This course will explore these questions and others through seminar discussions, fieldwork, and writing that will examine the concepts, assumptions, and principles that shape how we think about interfaith dialogue.

Same as: AMSTUD 236, CSRE 136A, RELIGST 336X

EDUC 437. Curricular Practical Training. 1-3 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 438. Second Language Acquisition Theories: Implications for Policy, Instruction and Teacher Preparation. 3-5 Units.

This course will first offer a snapshot of Second Language Acquisition (SLA) theories, contrast varying theoretical perspectives and examine how they inform the language teaching and learning process. It will then engage students in the examination and discussion of well-known approaches used in language instruction (e.g., leveled ELD, SIOP, CLIL, bilingual education, secondary foreign language education, heritage language instruction) in order to identify the theoretical perspectives informing particular pedagogies and practices.

EDUC 439. Critical Race Theory in Education. 2-5 Units.

This seminar will examine the foundational tenets of Critical Race Theory (CRT) as an analytic framework to study of inequities in P-20 education. Each week will examine how CRT tenets developed in law and were taken up in education via epistemology, methodology, and axiology. Consequently, the course will move temporally, spatially, and pedagogically across fields and siblings of Critical Race Theory. We will use the course content as a vehicle to understand the theoretical and analytical power and limits of CRT. Finally, we will explore CRT's focus on identifying and disrupting white supremacy, anti-Blackness, and interlocking inequities (re)produced in education.

EDUC 440. Re-Examining Special Education through Multiple Lenses: Disability and Difference in Assessment. 1-3 Unit.

This seminar, intended to grow and shift with the changing landscape of education, with particular focus on students with learning differences and the interests of our doctoral students and faculty, begins by exploring three questions: (1) How can scholars and scientists support the growth and development of students with learning differences? (2) How do we define and critique evidence-based practices (EDPs), including what counts as evidence and in what ways do EDPs support change in school outcomes? (3) In what ways do the Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA) provide direction and support progress in creating fully inclusive communities across the U.S.? What are the missed opportunities, misdirections, and barriers to fully emancipated and connected lives? Conveners will likely change each quarter along with topics.

EDUC 441. The Youth Justice Lab: Imagining an Anti-Racist Public Education System. 3 Units.

This course will take an interdisciplinary approach to these issues by enrolling students from the Law School and the Graduate School of Education. Specifically, partnering with Public Counsel and IntegrateNYC, Youth Justice Lab students will gather and analyze the relevant historical and empirical research, interview and consult with experts in the field, and draft a series of research and policy memos that summarize our research and provide recommendations.

EDUC 445. Entrepreneurial Approaches to Education Reform. 3 Units.

(Same as STRAMGT 335) In this course, students will investigate opportunities and challenges of entrepreneurial ventures trying to make a positive impact in public education. The course requires a basic level of understanding of the U.S. K-12 public school system. The first session will analyze the structure of the public education as an industry, with a special emphasis on understanding the achievement gap. Subsequent sessions will explore challenges in increasing efficacy, ensuring financial sustainability, and scaling for entrepreneurs who have sought to change student outcomes, solve pain points, and innovate. The course will feature a variety of ventures (including schools, education technology, training, and supplemental services) and organizational models (for-profit, not-for-profit, and benefit corporation). This course is suitable for students aspiring to be entrepreneurs, leaders in entrepreneurial organizations, leaders in educational organizations, Board members, donors or investors. (Note: this is not a "how-to" course on starting an entrepreneurial venture.)

EDUC 447. Leading Change in Public Education. 2 Units.

(Same as STRAMGT 537) Public education in America is at a crossroads. Does our education system have what it takes to produce graduates who are prepared for college, career, and citizenship in our increasingly digital and pluralistic world? Will income and ethnic achievement gaps continue to be pervasive and persistent in our nation's largest urban cities? Will family zip code determine educational destiny for the next generation of students? Which strategies and reforms are truly demonstrating results and which are merely passing fads? As in all large-scale enterprises undergoing rapid, transformative change, leadership matters greatly. Fortunately, over the last decade, the reform of American public education has been led by a number of innovative and results-oriented leaders at the state, district and charter levels. These leaders are bringing additional urgency, strategies, and ideas designed to prepare America's schools and students for the century ahead. Some ideas are proving to be critical levers for change, others are facing significant political challenges, and others have not delivered on expected results. Many of them hold lessons for how future educational leaders can contribute to transforming public education for the next generation of K-12 students. This course will focus on school system leadership for education reform. The course will provide an overview of the critical issues facing K-12 public education in America today, and what is going on across the U.S. during this transformative period of change. Once this context is set, students will study education leaders and systems change strategies from the last 10-15 years at the state, district and charter levels. We will focus on leaders across five domains: Leadership in crisis situations, strategic leadership, "china-breaking" leadership, sustaining leadership, and next generation leadership. We will also look at leadership examples from outside K-12 education to broaden our thinking about what leadership styles and strategies could be successfully applied to education. 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. Case studies in school system leadership will form the primary basis for classroom assignments and discussion. We will examine what went right and what went wrong in each case, focusing particularly on the decisions that school system leaders faced and the implications of their decisions. Most cases will be supplemented with research publications, technical notes, news clips, and/or videos to deepen students' understanding of the context or issues discussed in the cases. Dan Katzir worked for Bain & Company, Teach for America, Sylvan Learning Systems and the Eli and Edythe Broad Foundation before joining Alliance College-Ready Public Schools as its CEO in 2015. He is an experienced case study teacher and the editor of *The Redesign of Urban School Systems: Case Studies in District Governance*.

EDUC 450A. 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 450B. Using Video as Data in the Learning Sciences. 1-4 Unit.

This seminar will focus on key theoretical and methodological advances in the use of digital video-based data in the learning sciences as a fruitful part of a research agenda on teaching, learning, and other educational processes. May be repeat for credit.

EDUC 450C. Qualitative Interviewing. 3 Units.

Addressing the theoretical underpinnings of qualitative interviews as well as the application of theory to practice, this course considers different approaches to interviewing. Interview types covered will range from group interviews to individual interviews, and from unstructured, ethnographically oriented interviews to highly structured interviews. Working with community partners to facilitate application to practice, the students will move from theory to interview design, implementation, and initial stages of analysis, with an emphasis on consistency in approach and utility in graduate-level research.

Same as: ENVRES 231

EDUC 451. Research Workshop on Quantitative Analyses of Textbook Content. 1-4 Unit.

This course is intended as a small research workshop for doctoral students interested in using textbooks as data for quantitative social science research. There is an emphasis on comparative work (i.e. looking between states/provinces or countries) and social science textbooks (i.e. history, civics, social studies, geography), but some flexibility to study a single context and/or other subjects (e.g. science, math) depending on data availability. Concretely, the aim is to finish the course with a rough draft of a research project that can be developed for future publication.

EDUC 453. Doctoral Dissertation. 1-15 Unit.

For doctoral students only. (all areas).

EDUC 460. Language, Culture, Cognition, and Assessment. 3 Units.

Examines the intersection of language, culture, and cognition, and the implications of this intersection in educational assessment. Knowledge from different disciplines is used to reason about assessment from the conceptual, methodological, and social perspectives.

EDUC 464. Measuring Learning in the Brain. 3 Units.

Everything we learn - be it a historical fact, the meaning of a new word, or a skill like reading, math, programming or playing the piano - depends on brain plasticity. The human brain's incredible capacity for learning is served by a variety of learning mechanisms that all result in changes in brain structure and function over different time scales. The goal of this course is to (a) provide an overview different learning systems in the brain, (b) introduce methodologies and experiments that have led to new discoveries linking human brain plasticity and learning, (3) design an experiment, collect neuroimaging data, and measure the neurobiological underpinnings of learning in your own brain with MRI. The first section of the course will involve a series of lectures on the foundations of plasticity and learning with particular attention to experimental methods used in human neuroimaging studies. The second part of the course will involve workshops on designing and implementing experiments in MATLAB/ Psychtoolbox or Python/PsychoPy. During this part of the course students will design, present and implement their own experiments. Finally, students will learn how to collect and analyze MRI data by being participants in their own fMRI experiments. Alternatively, we will conduct class projects using public datasets if working in person is not deemed safe.

EDUC 465. Development and Psychological Sciences (DAPS) Faculty Student Seminar. 1 Unit.

Faculty and students in the DAPS graduate training program will convene to discuss how the disciplines of developmental and psychological sciences impact education, ground these issues in the work of current faculty and advanced student research, discuss professional development issues unique to this area, and share student perspectives on the field and their progress in the program. May be repeat for credit.

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 467. QP Presentation Seminar and Symposium. 1-3 Unit.

For 3rd and 4th year PhD students in CTE. Students will learn to transform their 2nd year qualifying papers into polished oral presentations suitable for professional academic conferences. Course will cover presentation skills, including appropriate use of visuals; time management; and strategic attention to key aspects of study background, motivation, methods, findings, conclusions, and implications. At the end of the course students will participate in a series of public symposia to present the results of their QP study. For additional units students will have the option to write proposals to present their studies at professional conferences.

EDUC 468. Robotics, AI and Design of Future Education. 1 Unit.

The seminar will feature guest lectures from industry and academia to discuss the state of the affairs in the field of Robotics, Artificial Intelligence (AI), and how that will impact the future Education. The time of robotics/AI are upon us. Within the next 10 to 20 years, many jobs will be replaced by robots/AI. We will cover hot topics in Robotics, AI, how we prepare students for the rise of Robotics/AI, how we Re-design and Re-invent our education to adapt to the new era.

Same as: ME 268

EDUC 469. Workshop and Reading Group in Child Development. 1-2 Unit.

This course provides a supportive space for graduate students interested in studying child development to workshop their research questions, conceptual and methodological issues, and drafts of proposals, presentations, or papers. The participants will practice how to conduct effective peer review and offer constructive feedback. General topics include but are not limited to: (1) developmental assessments, (2) family, level, school, level, and neighborhood, level factors that explain variability in children's outcomes, (3) examining underlying mediating and moderating processes, and (4) evaluating policies and programs.

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 489. RILE Colloquium on Race, Inequality, and Language in Education. 1-2 Unit.

This course is a workshop for PhD students focusing on interdisciplinary empirical work related to Race, Inequality, and Language in Education.

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 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).

EDUC 9. Public Service Internship Preparation. 1 Unit.

Are you prepared for your internship this summer? This workshop series will help you make the most of your internship experience by setting learning goals in advance; negotiating and communicating clear roles and expectations; preparing for a professional role in a non-profit, government, or community setting; and reflecting with successful interns and community partners on how to prepare sufficiently ahead of time. You will read, discuss, and hear from guest speakers, as well as develop a learning plan specific to your summer or academic year internship placement. This course is primarily designed for students who have already identified an internship for summer or a later quarter. You are welcome to attend any and all workshops, but must attend the entire series and do the assignments for 1 unit of credit.

Same as: EARTHSYS 9, HUMBIO 9, PUBLPOL 74, URBANST 101

EDUC 97. Science Education through Community Service. 3 Units.

This course is about science teaching and learning in non-classroom settings. You will use the research on teaching and learning to make STEM experiences relevant to more learners, create and facilitate a learner-centered approach to science experiences in an informal setting, and practice being a culturally responsive teacher. In addition, you'll become familiar with current trends in US science education, examine your own stance on teaching and what it takes to be an effective teacher, and consider your own growth as a teacher and as someone who interacts with area youth through community service. You will spend one day a week working with two youth working alongside your peers in an after-school enrichment program for low income youth. This is a Cardinal Course, supported through the Haas Center for Public Service.

EDUC 98. Service Learning Practicum. 1 Unit.

For Alternative Spring Break program leaders. The skills and philosophical framework to develop and lead an ASB experience. May be repeat for credit.