

Engineering a Better World GE Track

This track is an opportunity for engineers to merge their interest in developing applied solutions to technical challenges with their interest in being a collaborative partner to make the world a better place. The “Engineering a Better World Track” is an interdisciplinary track that enables engineers to learn more about community engagement as a collaborative process and critical way of collectively addressing complex challenges in the 21st century. Students who explore this track will have an opportunity to learn more about critical issues and community partnership in UCLA’s backyard of Los Angeles and beyond. Students will also have an opportunity to explore community engagement through the different lens of food, art, environment, the technical city, and more.

List of Courses by GE Foundation Area

Click on a Foundation Area or scroll below to see list of courses and descriptions.

ARTS AND HUMANITIES - LITERARY AND CULTURAL ANALYSIS (0 COURSES)

ARTS AND HUMANITIES - PHILOSOPHICAL AND LINGUISTIC ANALYSIS (1 COURSE)

ARTS AND HUMANITIES - VISUAL AND PERFORMING ARTS ANALYSIS (3 COURSES)

SOCIETY AND CULTURE - HISTORICAL ANALYSIS (1 COURSE)

SOCIETY AND CULTURE - SOCIAL ANALYSIS (12 COURSES)

SCIENTIFIC INQUIRY - LIFE SCIENCE (3 COURSES)

SCIENTIFIC INQUIRY - PHYSICAL SCIENCE (3 COURSES)

ARTS AND HUMANITIES - LITERARY AND CULTURAL ANALYSIS (0 COURSES)

No courses for this GE Foundation area in this track

ARTS AND HUMANITIES - PHILOSOPHICAL AND LINGUISTIC ANALYSIS (1 COURSE)

World Arts and Culture 33 – Colonialisms and Resistance. Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldviews as they are expressed through art, mythology, ritual, health practice, languages, and ecology. With examples spanning globe, consideration of issues of colonialism, tradition, religious change, and legal and social implications of epistemological differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.

ARTS AND HUMANITIES - VISUAL AND PERFORMING ARTS ANALYSIS (3 COURSES)

Arts Education 20 – Introduction to Community Engagement through Arts. Lecture, three hours; discussion, one hour; outside study, 11 hours. Introduction to fields of community engagement and arts education informed by philosophies of progressive education and social justice movements. By looking at community engagement as issue of equity and social justice, examination of basic theories of creativity, artistic development, and community partnership, and history, philosophies, politics, and sociocultural trends of community engagement in American society. Attendance at UCLA arts presentations and introduction to creative process. Readings and discussions to understand community engagement and arts education as crucial elements of comprehensive education, with emphasis on writing process, including regular writing assignments that require students to read, analyze, critique, and evaluate community arts practices and arts education scholarship. P/NP or letter grading.

World Arts and Culture M79 – Food Politics: Cultural Solutions to Political Problems. (Formerly numbered 79.) (Same as Food Studies M79.) Lecture, four hours; discussion, one hour. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

Media/Design Arts 9 – Art, Science and Technology. Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lecturers. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

SOCIETY AND CULTURE - HISTORICAL ANALYSIS (1 COURSE)

Sociology 2B – Social Knowledge and Social Power. Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of those practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledge differs in agricultural, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

SOCIETY AND CULTURE - SOCIAL ANALYSIS (12 COURSES)

Community Engagement and Social Change 50XP – Engaging Los Angeles.

Lecture, two hours; discussion, two hours. Community-engaged learning course with focus on diverse communities of Los Angeles. Analysis of general shared history of Los Angeles. Comparing or contrasting of experiences of several different racial/ethnic groups. Engagement in meaningful work off campus to reflect on assets, injustices, and inequities that have shaped experiences of native or immigrant communities. Analysis of Los Angeles in which residents coexist and interact while managing tensions and social justice issues inherent in minority/majority city. Letter grading.

Arts Education 20 – Introduction to Community Engagement through Arts. Lecture, three hours; discussion, one hour; outside study, 11 hours. Introduction to fields of community engagement and arts education informed by philosophies of progressive education and social justice movements. By looking at community engagement as issue of equity and social justice, examination of basic theories of creativity, artistic development, and community partnership, and history, philosophies, politics, and sociocultural trends of community engagement in American society. Attendance at UCLA arts presentations and introduction to creative process. Readings and discussions to understand community engagement and arts education as crucial elements of comprehensive education, with emphasis on writing process, including regular writing assignments that require students to read, analyze, critique, and evaluate community arts practices and arts education scholarship. P/NP or letter grading.

Political Science M115C – Citizenship and Public Service. (Same as Community Engagement and Social Change M115.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended prerequisite: course 10. Designed for juniors/seniors. Study of ways in which political thinkers have conceived of ideas of citizenship and public service, how these ideas have changed over time, and frameworks for thinking about citizenship in era of markets and globalization. P/NP or letter grading.

Digital Humanities 30 – Los Angeles Tech City: Digital Technologies and Spatial Justice. Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic city of Los Angeles through lens of three thematic technologies that built and transformed Los Angeles into global metropolis: cars and highways, networking technologies culminating in Internet and World Wide Web, and film and broadcast media. Use of innovative forms of investigation and communication, from digital mapping to video-sensing, to integrate interpretative and historical approaches of humanities with material and projective practices of design. Letter grading.

Economics 5 – Economics for Everyone. Lecture, three hours; discussion, one hour. Introduction to models and tools used by economists in practical real-world context.

Study of important topical issues such as inequality, health care, and environmental policies. Students learn about available data sources and become better equipped to understand current events. May not be used to fulfill entrance requirements for any Economics Department major. P/NP or letter grading.

Political Science 60 – Ethics and Governance. Lecture, three or four hours; discussion, one hour (when scheduled). To study question of can't we all just get along, students play games of cooperation, coordination, collaboration, and competition and examine whether and how diversity, disagreement, and democracy influence game play, to understand under what conditions diversity feeds productively or counterproductively into group effort. Development of self- and other-awareness of emergent properties of disagreement to appreciate how different kinds of social organization promote or undercut social cognition and collective action. Such understanding needs to develop bottom-up through experiential and interactive learning, active and analytical learning, systems thinking, and real-world application. P/NP or letter grading.

Education 10 – Introduction to Educational Issues and Scholarship. Lecture, two hours; discussion, two hours. Introduction to broad landscape of public education in U.S. Intended for those interested in educational research, policy, or teaching in both formal and informal educational contexts. Readings highlight work of educational researchers from UCLA's Department of Education, especially ways their scholarship intersects with policy and practice. Students work in groups to identify real-life problem affecting public education in Los Angeles. Study of this problem from multiple perspectives. Conceptualization of socially-just solution. Letter grading.

Sociology 2B – Social Knowledge and Social Power. Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of those practices to social thought, social engineering, and social science. Themes include development of social knowledges through public activities and discourses; how social knowledge differs in agricultural, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

Gender Studies 10 – Introduction to Gender Studies. Lecture, three hours; discussion, one hour. Introduction to key concepts in study of sex and gender. Exploration of topics such as gender socialization, body image, sexualities, masculinities, and women's subordination. Special emphasis on interaction of gender with other identity markers such as race, nation, ethnicity, sexuality, class, and other differences. P/NP or letter grading.

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expressed through art, mythology, ritual, health practice, languages, and ecology. With examples spanning globe, consideration of issues of colonialism, tradition, religious change, and legal and social implications of epistemological differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.

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Environment 12 – Sustainability and Environment. Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental component, including Earth's physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific method in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate change, biodiversity, pollution, and water and energy resources presented in context of creating sustainable human society that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

SCIENTIFIC INQUIRY - LIFE SCIENCE (3 COURSES)

Biomedical Research 1A – Science in Your Time. Lecture, three hours; discussion, one hour. Exploration of current topics in biology from media sources like news organizations and TED Talks, tracing information back to primary research. Students learn to critically evaluate primary sources. Discussion of bias in system producing primary research from undergraduate education through tenured faculty, and medicine and national science funding (National Institutes of Health and National Science Foundation). Addresses lack of Black and Latinx representation and its impact on science valued by current system. Letter grading.

Environment 12 – Sustainability and Environment. Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental component, including Earth's physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific method in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate

change, biodiversity, pollution, and water and energy resources presented in context of creating sustainable human society that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

Environment 25 – Good Food for Everyone: Health, Sustainability, and Culture.

Lecture, three hours; discussion, one hour. Good food is healthy, sustainably produced, and culturally meaningful. Introduction to basic concepts and history of food systems, food science and nutrition, fair and sustainable food production, natural resources and environmental issues including climate change and biodiversity, agriculture and food policy and law, food distribution and access, cultural identity and artistic engagements with food. P/NP or letter grading.

SCIENTIFIC INQUIRY - PHYSICAL SCIENCE (3 COURSES)

Atmospheric and Ocean Sciences AOS1 – Climate Change: from Puzzle to Policy.

Lecture, three hours; discussion, one hour. Overview of fundamentals of Earth's climate, including greenhouse effect, water and chemical cycles, outstanding features of atmospheric and ocean circulation, and feedback between different system components. Exciting and contentious scientific puzzles of climate system, including causes of ice ages, greenhouse warming, and el niño. Importance of climate science and prediction to society, with emphasis on science's role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/NP or letter grading.

Environment 12 – Sustainability and Environment. Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental component, including Earth's physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific method in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate change, biodiversity, pollution, and water and energy resources presented in context of creating sustainable human society that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

Environment 25 – Good Food for Everyone: Health, Sustainability, and Culture.

Lecture, three hours; discussion, one hour. Good food is healthy, sustainably produced, and culturally meaningful. Introduction to basic concepts and history of food systems, food science and nutrition, fair and sustainable food production, natural resources and environmental issues including climate change and biodiversity, agriculture and food policy and law, food distribution and access, cultural identity and artistic engagements with food. P/NP or letter grading.