# UNIVERSITY HONORS PROGRAM

Gregg Fiegel, Director

Robert E. Kennedy Library, Bldg. 35, Room 510

Phone: 805.756.7029 http://honors.calpoly.edu

Cal Poly founded its University Honors Program in 1999. The mission of the program is to offer an academically enriched learning experience for Cal Poly's most outstanding and highly motivated students. Serving the entire university, the program provides a supportive and inclusive community for aspiring scholars seeking to challenge themselves, participate in experiential and interdisciplinary learning, serve others, and expand the boundaries of their academic potential.

In support of this mission, the Honors Program provides curricular and co-curricular programming designed to foster intellectual engagement, knowledge discovery, interdisciplinary collaboration, and the mutual exchange of ideas. Courses, seminars, leadership opportunities, research projects, mentoring experiences, service projects, study abroad programs, dedicated meeting/study space, and a learning community in campus housing provide Honors students with opportunities to expand and enrich their academic experiences in the company of similarly motivated peers. Following Cal Poly's hands-on approach to education, students may participate in community projects and co-curricular activities to enhance their coursework, develop leadership skills, gain global perspectives, and build relationships across academic disciplines.

The Honors Program currently supports hundreds of Cal Poly students demonstrating a wide variety of backgrounds, interests, and talents. These students represent nearly 60 different majors in all six colleges on campus. Graduates of the Honors Program leave Cal Poly with a broad and enriched education. In addition, they earn "with Honors" distinction on their diploma and special recognition during commencement.

Students interested in joining the Honors Program should contact the Honors Office in Kennedy Library, Room 510 (Ph: 805-756-7029; E-mail: honors@calpoly.edu) regarding the application procedure and minimum qualifications. Applications are accepted from first-time freshmen, community college transfers, and continuing Cal Poly students who have completed less than five quarters in residence.

#### **Academic Standards**

To maintain membership in the Honors Program, students must perform well academically, complete their Honors course requirements in a timely manner, communicate regularly with the program, and maintain good character. The Honors Program reviews each student's academic performance and progress quarterly. A student's Cal Poly (CPSLO) cumulative GPA is used as the primary measure of academic performance. Minimum CPSLO cumulative GPA requirements are as follows:

- · 3.3 by the end of the student's first year;
- · 3.4 by the end of the student's second year;
- · 3.5 by the end of the student's third year; and
- 3.5 by the end of the student's fourth year and at the time of graduation.

### **Program Learning Objectives**

The following Program Learning Objectives (PLOs) define what Honors students will know and be able to do by the time they graduate from Cal Poly and the University Honors Program:

- 1. Demonstrate attitudes supportive of the Honors Program community;
- 2. Mentor peers effectively;
- 3. Communicate effectively with others;
- Apply leadership principles to organize and direct the efforts of a group
- 5. Make reasoned decisions based on an understanding of diversity, sustainability, global perspectives, technology, and ethics;
- Function effectively as a member of an interdisciplinary group or team;
- Integrate knowledge and skills from different disciplines to solve problems;
- 8. Plan, carry out, document, and defend a capstone project;
- Demonstrate skills in information literacy and the ability to self-direct one's learning;
- Demonstrate a strengthened sense of community, civic responsibility, and philanthropy.

### **Program Requirements and Curriculum**

In addition to the academic standards listed on this page, Honors students must satisfy the program course requirements, complete a senior project or capstone experience within their major, document a campus or community leadership experience, and document a mentor (or learning assistant) experience. Honors students must file leadership and mentor experience documentation prior to their final quarter on campus.

Program course requirements are noted below. Honors students declare a research, study abroad, or community service track during their second year in the program. Students enroll in HNRS 361 to complete their "Honors Track" requirement. Guidelines, conditions, and requirements associated with these tracks are available through the Honors Program office.

#### **REQUIRED COURSES**

HNRS 161	Creating Sustainable Communities I	2
HNRS 162	Creating Sustainable Communities II	2
HNRS 163	Creating Sustainable Communities III	2
HNRS 261	Leadership: Self Evaluation	1
HNRS 361	Honors Track - Research, International, and Community Service Experience <sup>1</sup>	1
HNRS 461	Honors Capstone Seminar	1
APPROVED ELECTIVES		
Select at least five additional HNRS or HNRC courses		14-20
Total Units		23-29

Complete one of the following Honors Tracks: a research project, a study abroad or international experience, or community service.

#### **HNRC Courses**

#### HNRC 199. Honors Contract. 0 unit

CR/NC

Term Typically Offered: F, W, SP

Prerequisite: Student must be in good standing in the Honors Program, and have permission of the Director.

Students in the Honors Program are required to take at least eight courses for honors credit before graduation. Taking an Honors course may not be possible due to scheduling conflicts or unavailability of courses. In these cases and with the permission of the Director of the Honors Program, the student may enter into a 'Contract' to engage in honors-level work in a class on an individual basis. Credit/No Credit grading only. Students can register for a maximum of 2 Honors Contracts; repeatable in same term.

#### HNRC 200. Honors Leadership Experience. 0 unit

CR/NC

Term Typically Offered: F, W, SP

Prerequisite: Student must be in good standing in the Honors Program, and have permission of the Director.

The Honors Program encourages its students to develop leadership skills through serving on the Honors Board, chairing Honors Committees, or by participating in other approved leadership activities. To receive Honors credit for these activities, students must also participate in a number of formal leadership-training seminars/workshops, and contribute their insights to the Honors and greater Cal Poly communities. Credit/No Credit grading only. Total credit limited to two courses.

#### HNRC 399. Honors Contract. 0 unit

CR/NC

Term Typically Offered: F, W, SP

Prerequisite: Student must be in good standing in the Honors Program, and have permission of the Director.

Students in the Honors Program are required to take at least eight courses for honors credit before graduation. Taking an Honors course may not be possible due to scheduling conflicts or unavailability of courses. In these cases and with the permission of the Director of the Honors Program, the student may enter into a 'Contract' to engage in honors-level work in a class on an individual basis. Credit/No Credit grading only. Students can register for a maximum of 2 Honors Contracts; repeatable in same term.

### HNRC 400. Honors Professional, Social and Global Experience. 0 unit CR/NC

Term Typically Offered: F, W, SP

Prerequisite: Student must be in good standing in the Honors Program, and have permission of the Director.

The Honors Program encourages its students to enhance their academic coursework by broadening their professional, social and global perspectives through professional internships/co-ops, participation in community projects and study abroad experience. To receive Honors credit, students must also reflect on these experiences and contribute their insights through presentations (oral and/or written) to the Honors and greater Cal Poly communities. Credit/No Credit grading only. Total credit limited to two courses, repeatable in the same term.

#### **HNRS Courses**

# HNRS 100. Introduction to the Honors Community. 2 units $\mbox{CR/NC}$

Term Typically Offered: TBD

Topics on sustainability, diversity, ethics, and transition to life at Cal Poly. Introduction to Honors Program opportunities. Mentoring and building community. Collaboration with local service organizations. For University Honors Program students only. Credit/No Credit grading only. 1 lecture, 1 activity.

#### HNRS 101. Public Speaking. 4 units

GE Area A2

Term Typically Offered: F, SP

Introduction to the principles of public speaking. Practical experience in the development, presentation, and critical analysis of speeches to inform, to persuade, and to actuate. Not open to students with credit in COMS 102. 4 lectures. Crosslisted as COMS/HNRS 101. Fulfills GE A2; for students admitted Fall 2016 or later a grade of C- or better is required to fulfill GE Area A2.

#### HNRS 102. Principles of Oral Communication. 4 units

GE Area A2

Term Typically Offered: TBD

Introduction to the fundamentals and principles which underlie effective oral communication. Practical experience in various types of speaking situations: informative speaking, persuasive speaking, and panel discussion. Not open to students with credit in COMS 101. 4 lectures. Crosslisted as COMS/HNRS 102. Fulfills GE A2; for students admitted Fall 2016 or later a grade of C- or better is required to fulfill GE Area A2.

#### HNRS 112. Race, Culture and Politics in the United States. 4 units

GE Area D1; USCP

Term Typically Offered: TBD

Introductory and interdisciplinary study of the ways that race and ethnicity are created by both historical processes and American institutional formation - specifically social, political, economic, legal and cultural institutions. Special attention paid to the interlocking systems of race, class, gender and sexuality. 4 lectures. Crosslisted as ES/HNRS 112. Fulfills GE D1 and USCP.

#### HNRS 132. General Physics II. 4 units

GE Area B3; GE Area B4 Term Typically Offered: TBD

Prerequisite: PHYS 131 or HNRS 131 or PHYS 141.

Oscillations, waves in elastic media, sound waves. Temperature, heat and the first law of thermodynamics. Kinetic theory of matter, second law of thermodynamics. Geometrical and physical optics. 3 lectures, 1 laboratory. Crosslisted as HNRS/PHYS 132. Fulfills GE B3 & B4.

#### HNRS 134. General Physics IA. 4 units

GE Area B3

Term Typically Offered: TBD

Prerequisite: MATH 141 with grade C- or better and MATH 142 or MATH 182 (or concurrent enrollment). Recommended: High School Physics.

Fundamental principles of mechanics. Vectors, particle kinematics. Equilibrium of a rigid body. Work and energy, linear momentum, rotational kinematics and dynamics. Primarily for engineering and science students. Not open to students with credit in PHYS 131. 4 lectures. Crosslisted as HNRS 134/PHYS 141. Fulfills GE B3.

#### HNRS 141. Calculus I. 4 units

GE Area B1

Term Typically Offered: TBD

Prerequisite: Appropriate Math Placement Level; or MATH 117 and high school trigonometry; or MATH 118 and high school trigonometry; or MATH 119.

Limits, continuity, differentiation. Introduction to integration. 4 lectures. Crosslisted as HNRS/MATH 141. Fulfills GE Area B1; for students admitted Fall 2016 or later, a grade of C- or better in one GE Area B1 course is required to fulfill GE Area B.

#### HNRS 142. Calculus II. 4 units

GE Area B1

Term Typically Offered: TBD

Prerequisite: MATH 141 with a grade of C- or better or consent of instructor.

Techniques of integration, applications to physics, transcendental functions. 4 lectures. Crosslisted as HNRS/MATH 142. Fulfills GE B1; for students admitted Fall 2016 or later, a grade of C- or better in one GE B1 course is required to fulfill GE Area B.

#### HNRS 143. Calculus III. 4 units

GE Area B1

Term Typically Offered: TBD

Prerequisite: MATH 142 with a grade of C- or better or consent of

instructor.

Infinite sequences and series, vector algebra, curves. 4 lectures. Crosslisted as HNRS/MATH 143. Fulfills GE B1; for students admitted Fall 2016 or later, a grade of C- or better in one GE B1 course is required to fulfill GE Area B.

# HNRS 145. Reasoning, Argumentation, and Writing. 4 units GE Area A3

Term Typically Offered: F, W, SP

Prerequisite: Completion of GE Area A1 with a grade of C- or better. Recommended: Completion of GE Area A2.

The principles of reasoning in argumentation. Examination of rhetorical principles and responsible rhetorical behavior. Application of these principles to written and oral communications. Effective use of research methods and sources. 4 lectures. Crosslisted as COMS/ENGL/HNRS 145. Fulfills GE A3; for students admitted Fall 2016 or later a grade of C- or better is required to fulfill GE Area A3.

### HNRS 148. Reasoning, Argumentation and Professional Writing. 4 units GE Area A3

Term Typically Offered: TBD

Prerequisite: Completion of GE Area A1 with a grade of C- or better.

Recommended: Completion of GE Area A2.

The principles of reasoning in professional writing. Discussion and application of rhetorical principles, both oral and written, in professional environments. Study of methods, resources and common formats used in corporate or research writing. 4 lectures. Crosslisted as ENGL/HNRS 148. Fulfills GE A3; for students admitted Fall 2016 or later a grade of Cor better is required to fulfill GE Area A3.

#### HNRS 149. Technical Writing for Engineers. 4 units

GE Area A3

Term Typically Offered: SP

Prerequisite: Completion of GE Area A1 with a grade of C- or better. For Engineering students only. Recommended: Completion of GE Area A2.

The principles of technical writing. Discussion and application of rhetorical principles in technical environments. Study of methods, resources and common formats used in corporate or research writing. 4 lectures. Crosslisted as ENGL/HNRS 149. Fulfills GE A3; for students admitted Fall 2016 or later a grade of C- or better is required to fulfill GE Area A3.

### HNRS 161. Creating Sustainable Communities I. 2 units

GE Area D3

Term Typically Offered: F

Environmental, historical, and social dimensions of sustainability. Elements of sustainable communities in a local and global context. Resilience and systems thinking. Introduction to research skills. Developing community within the Honors Program. Includes a service learning component. For University Honors Program students only. 1 lecture, 1 activity. Upon completion of HNRS 161 and HNRS 162, a student will receive 4 units of GE credit for Area D3.

### HNRS 162. Creating Sustainable Communities II. 2 units

GE Area D3

Term Typically Offered: W

Prerequisite: HNRS 161. Upon completion of HNRS 161 and HNRS 162, a student will receive 4 units of GE credit for Area D3.

Continuation of HNRS 161. Environmental, historical, and social dimensions of sustainability. Institutional views of sustainability. Environmental justice. Appropriate technology. Developing community within the Honors Program. Includes a service learning component. For University Honors Program students only. 1 lecture, 1 activity.

#### HNRS 163. Creating Sustainable Communities III. 2 units

Term Typically Offered: SP Prerequisite: HNRS 162.

Continuation of HNRS 161 and 162. Implementation and assessment of a year-long community service project, initiative, or campaign. Project management and interpersonal communication. Developing community within the Honors Program. For University Honors Program students only. 1 lecture, 1 activity.

### HNRS 200. Special Problems for Undergraduates. 1-2 units CR/NC

Term Typically Offered: F, W, SP

Prerequisite: Consent of instructor and Honors Program.

Individual investigation, research, projects, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter. Credit/No Credit grading only.

#### HNRS 201. Survey of Economics. 4 units

GE Area D2

Term Typically Offered: TBD

Basic principles of microeconomics and macroeconomics. Emphasis on applications to current national and global economic issues. For majors requiring one quarter of economics. Not open to students having previous credit in ECON 222 or equivalent. 4 lectures. Crosslisted as ECON/HNRS 201. Fulfills GE D2.

#### HNRS 202. United States History Since 1865. 4 units

GE Area D1; USCP

Term Typically Offered: TBD

Survey of the second half of U.S. history, including reconstruction, industrialization, the regulatory state, foreign affairs, and the remaking of citizenship rights and society. Particular attention to how race, class, and gender shaped changing definitions of freedom and equality. Not open to students with credit in HIST 206 or HIST 207. 4 lectures. Crosslisted as HIST/HNRS 202. Fulfills GE Area D1 and USCP.

#### HNRS 203. United States History to 1865. 4 units

GE Area D1; USCP

Term Typically Offered: TBD

Survey of the first half of U.S. history, including: contact and settlement, American Revolution, slavery, westward expansion, early California, Civil War, and California and U.S. Constitutions. Particular attention to how race, class, and gender shaped changing definitions of freedom and equality. Not open to students with credit in HIST 206 or HIST 207. 4 lectures. Crosslisted as HIST 201/HNRS 203. Fulfills D1 and USCP.

# HNRS 204. Introduction to Women's and Gender Studies in the United States. 4 units

GE Area D1; USCP

Term Typically Offered: TBD

Introduction to theories and research on how genders and sexualities in the US shape and are shaped by historical processes and US institutional formation - specifically social, political, economic, legal, cultural institutions. Emphasis on interlocking systems of gender, sexuality, race and class. Course may be offered in classroom-based or online format. 4 lectures. Crosslisted as HNRS 204/WGS 201. Fulfills GE Area D1 and USCP.

#### HNRS 207. Freedom and Equality in American History. 4 units

GE Area D1; USCP

Term Typically Offered: TBD

The multiple and conflicting ways in which various Americans (defined in terms of race, class and gender) have struggled to formulate and promote their own understandings of freedom and equality, from the pre-conquest era to the present. 4 lectures. Not open to students with credit in HIST 201 or HIST 202. Crosslisted as HIST/HNRS 207. Fulfills GE D1 and USCP.

#### HNRS 211. Engineering Statics. 3 units

Term Typically Offered: TBD

Prerequisite: MATH 241 (or concurrently), PHYS 131 or PHYS 141.

Analysis of forces on engineering structures in equilibrium. Properties of forces, moments, couples, and resultants. Equilibrium conditions, friction, centroids, area moments of inertia. Introduction to mathematical modeling and problem solving. Vector mathematics where appropriate. 3 lectures. Crosslisted as HNRS/ME 211.

### HNRS 212. Global Origins of United States Cultures. 4 units

GE Area D3; USCP

Term Typically Offered: TBD

How the global dispersal of Europeans, Asians, and Africans, the hemispheric dispersal of Latin Americans, and the forced internal migration of Native Americans have contributed to American cultural heritage and the struggles for ethnic, class and gender equality, and justice. 4 lectures. Crosslisted as ES/HNRS 212. Fulfills GE D3 and USCP.

#### HNRS 213. Modern Political Economy. 4 units

GE Area D2

Term Typically Offered: TBD

The relationship between states and economies in the modern period. Themes of modernization, industrialization, and colonial expansion. The major theories of political economy, especially liberalism and socialism. 4 lectures. Crosslisted as HIST/HNRS 213. Fulfills GE D2.

#### HNRS 214. Engineering Dynamics. 3 units

Term Typically Offered: TBD

Prerequisite: MATH 241; ME 211 or ARCE 211.

Analysis of motions of particles and rigid bodies encountered in engineering. Velocity, acceleration, relative motion, work, energy, impulse, and momentum. Further development of mathematical modeling and problem solving. Vector mathematics where appropriate. 3 lectures. Crosslisted as HNRS 214/ME 212.

#### HNRS 216. Comparative Social Movements. 4 units

GE Area D3

Term Typically Offered: TBD

History of global social movements from the late nineteenth century to the present. May include, but not limited to: socialism, nationalism, feminism, fascism and communism, pacifism, life reform, gay liberation, indigenous peoples' movements, and environmentalism. Includes a service learning component. 4 lectures. Crosslisted as HIST/HNRS 216. Fulfills GE D3.

#### HNRS 223. World History, 1800 - Present. 4 units

GE Area D3

Term Typically Offered: TBD

Comparative history of Western and non-Western societies in global perspective. Cross-cultural exchange, interaction, and conflict in the making of the modern world, with focus on the economic, political, and cultural transformations that facilitated and emerged from imperialism. 4 lectures. Crosslisted as HIST/HNRS 223. Fulfills GE D3.

# HNRS 230. Philosophical Classics: Knowledge and Reality. 4 units GE Area C2

Term Typically Offered: F

Prerequisite: Completion of GE Area A with grades of C- or better; or for PHIL majors GE Area A3 with a grade of C- or better. Recommended: PHIL 126.

Critical examination of primary philosophical texts, from the ancient and modern periods, with focus on the nature of reality and the sources and limits of human knowledge. Course may be offered in classroom-based or online format. 4 lectures. Crosslisted as HNRS/PHIL 230. Fulfills GE Area C2

# HNRS 231. Philosophical Classics: Ethics and Political Philosophy. 4 units

GE Area C2

Term Typically Offered: W, SP

Prerequisite: Completion of GE Area A with grades of C- or better; or for PHIL majors GE Area A3 with a grade of C- or better. Recommended: PHIL 126.

Readings from primary philosophical texts, from the ancient and modern periods, with focus on the identification, evaluation and contemporary relevance of the central ethical and political themes and arguments presented in them. Course may be offered in classroom-based or online format. 4 lectures. Crosslisted as HNRS/PHIL 231. Fulfills GE Area C2.

#### HNRS 232. British Literature: 1789 to the Present. 4 units

GE Area C1

Term Typically Offered: TBD

Prerequisite: Completion of GE Area A with grades of C- or better.

Broadly surveys Romantic, Victorian, Modern, and Contemporary British literature in an historical-cultural context. Investigates works from several genres and a variety of national and cultural voices. May include such writers as Wordsworth, Wollstonecraft, Dickens, G. Eliot, Wilde, Woolf, Yeats, and Gordimer. 4 lectures. Crosslisted as ENGL 231/HNRS 232. Fulfills GE Area C1.

#### HNRS 241. Calculus IV. 4 units

Term Typically Offered: TBD Prerequisite: MATH 143.

Partial derivatives, multiple integrals, introduction to vector analysis. 4 lectures. Crosslisted as HNRS/MATH 241.

### HNRS 242. American Literature: 1830 to the Present. 4 units

GE Area C1

Term Typically Offered: TBD

Prerequisite: Completion of GE Area A with grades of C- or better.

A broad survey of later American literature from the rise of literary nationalism to the present. A wide range of writers and genres, including novels, short stories, poems, plays, essays, and autobiographies. Not open to students with credit in ENGL 240. 4 lectures. Crosslisted as ENGL/HNRS 242. Fulfills GE Area C1.

#### HNRS 244. Linear Analysis I. 4 units

Term Typically Offered: TBD Prerequisite: MATH 143.

Separable and linear ordinary differential equations with selected applications; numerical and analytical solutions. Linear algebra: vectors in n-space, matrices, linear transformations, eigenvalues, eigenvectors, diagonalization; applications to the study of systems of linear differential equations. 4 lectures. Crosslisted as HNRS/MATH 244.

### HNRS 251. Introduction to Classical Literature. 4 units

GE Area C1

Term Typically Offered: TBD

Prerequisite: Completion of GE Area A with grades of C- or better.

Examination of the ancient epics and classical literature of Mesopotamia, Greece, and Rome. May include such readings as The Epic of Gilgamesh, the Iliad, the Odyssey, Genesis, Exodus, Antigone, the Symposium, the Aeneid, and Marcus Aurelius's Meditations. 4 lectures. Crosslisted as ENGL/HNRS 251. Fulfills GE Area C1.

#### HNRS 261. Leadership: Self Evaluation. 1 unit

Term Typically Offered: F, W, SP Recommended: Sophomore standing.

Interpersonal leadership and communication skills with a focus on self evaluation. Personality assessment, preparation of a personal leadership development plan, and goal setting. Values and moral development. For University Honors Program students only. 1 activity.

#### HNRS 262. Leadership: Group Dynamics. 1 unit

Term Typically Offered: W Prerequisite: HNRS 261.

Teamwork and team building skills with a focus on group dynamics. Understanding the effects of diversity on team dynamics and performance. Cross-cultural communication and leadership. Development of trust, feedback, and conflict resolution. For University Honors Program students only. 1 lecture.

#### HNRS 263. Leadership: Coaching and Mentoring. 1 unit

Term Typically Offered: SP Prerequisite: HNRS 262.

Strategies for effective coaching and mentoring. Servant leadership, recognition of motivational sources in others, and positive psychology in leadership. Development of a leadership philosophy. For University Honors Program students only. 1 lecture.

#### HNRS 265. Research and Information Skills for Honors Students. 2 units

Term Typically Offered: W, SP Prerequisite: HNRS 162.

Identifying information resources and research support services available through Kennedy Library. Methods, best-practices, and ethical standards related to planning, carrying out, summarizing, and publishing scholarly research. Written, oral, and visual presentation of research findings. For University Honors Program students only. 1 lecture, 1 activity.

#### HNRS 270. Selected Topics. 1-4 units

Term Typically Offered: TBD

Prerequisite: Open to undergraduate students and consent of instructor.

Directed group study of selected topics. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

#### HNRS 299. Honors Group Seminar. 1 unit

CR/NC

Term Typically Offered: F, W, SP

Students in the Honors Program are required to take at least eight courses for honors credit before graduation. Taking an Honors course may not be possible due to scheduling conflicts or unavailability of courses. This course allows students to engage in honors-level work in a standard, non-honors course on a group basis. Credit/No Credit grading only. Total credit limited to 4 units; repeatable in same term. Must achieve a B or better in the related standard course. 1 seminar.

# HNRS 302. The Learn By Doing Lab Teaching Practicum. 2 units ${\sf CR/NC}$

Term Typically Offered: TBD

Prerequisite: Completion of GE Area B.

Early teaching experience in an informal science, technology, engineering, and mathematics (STEM) teaching and learning environment. Principles of inquiry-driven STEM education, lesson design, implementation and assessment. Intended for undergraduates exploring STEM teaching as a career. Total credit limited to 4 units. Credit/No Credit grading only. 1 seminar, 1 laboratory. Crosslisted as ENGR 322/SCM 302/HNRS 302.

### HNRS 303. Economics of Poverty, Discrimination and Immigration. 4 units

GE Area D5; USCP

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of Cor better; completion of one course in GE Area B1 with a grade of C- or better; and ECON 201 or ECON 222.

Economic analysis of the cause, extent and impact of poverty, discrimination and immigration and of the policies designed to address these socioeconomic issues. Emphasis on the experience of African-Americans, Latinos, and women in the United States. 4 lectures. Crosslisted as ECON/HNRS 303. Fulfills GE Area D5 and USCP.

#### HNRS 304. Values and Technology. 4 units

GE Area C4

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and one course in GE Area C.

Humanistic investigation into the theoretical and practical applications of technology with specific reference to the social effects of technological change. For all majors. Non-technical. 4 lectures. Crosslisted as HNRS 304/ISLA 303. Fulfills GE Area C4.

#### HNRS 310. Air and Space. 4 units

GE Area B7; GE Area F

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of Cor better; completion of GE Area B1 with a grade of Cor better in at least one of the courses; and completion of GE Areas B2, B3, and B4.

Technological innovations that have led to modern aircraft and spacecraft as viewed from an historical perspective. Development of aerodynamics, propulsion systems, light-weight structures, and control systems. How aviation has affected, and been affected by, history. Impact of aviation on society, including civil and military aircraft/spacecraft. Federal regulation of aviation, including air traffic control and airlines. Future developments in air and space technology. 4 lectures. Crosslisted as AERO/HNRS 310. Fulfills GE Area B7 or GE Area F.

#### HNRS 311. Computers for Poets. 4 units

GE Area B7; GE Area F Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of Corbetter; completion of GE Area B1 with a grade of Corbetter in at least one of the courses; and completion of GE Areas B2, B3, and B4.

How computers and computer devices work. Introduction to software systems and applications. How computers connect with various media including images, speech and data. How information is encoded and transmitted across networks. Relationship between the computer and human information processing. 4 lectures. Crosslisted as CSC 310/HNRS 311. Fulfills GE Area B7 or GE Area F.

#### HNRS 312. East Asian Culture and Civilization. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing or History major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area D2 or D3.

The pre-modern and modern histories of China and Japan. Focus on the traditional era, the transition to modernity, cultural uniqueness within East Asian civilization, and western images of Asia. 4 lectures. Crosslisted as HIST 310/HNRS 312. Fulfills GE Area D5.

#### HNRS 317. The Lure of the Sea. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing or History major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area D1, D2, or D3.

The history of the sea, people who travel across it, live alongside or in the midst of it, or simply seek it out. Topics include imperialism, maritime commerce, port cities, littoral societies, piracy, tourism, popular culture. 4 lectures. Crosslisted as HIST/HNRS 317. Fulfills GE Area D5.

# HNRS 320. Topics and Issues in Values, Media and Culture. 4 units GE Area C4

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1, C2, or C3. Recommended: Completion of GE Area C1 or C3.

The interplay of values, media, and culture from an interdisciplinary perspective. Descriptive subtitles assigned to each course. The Class Schedule will list topic selected. 4 lectures. Total credit limited to 8 units with different subtopic; repeatable in same term. Crosslisted as HNRS/ ISLA 320. Fulfills GE Area C4.

### HNRS 321. Undergraduate Research Methods and Practice. 4 units

Term Typically Offered: TBD

Prerequisite: Completion of GE Area A with grades of C- or better; GE Area B1; and consent of instructor.

Research methods and tools for sciences and humanities, including formulating a research question, designing a study, using the scientific method to conduct and analyze surveys, and analyzing data. Emphasis on working in interdisciplinary research teams. Total credit limited to 8 units. 2 lectures, 2 activities. Crosslisted as HNRS/UNIV 321.

#### HNRS 322. Leadership and Project Management. 2 units

Term Typically Offered: TBD

Prerequisite: Junior standing in an engineering program.

Theory and practice in leadership and project management skills for engineering design teams. Basic issues related to, and tools used for, managing projects and concepts comprising project management. Emphasis on situations requiring resolutions and management decisions by groups representing various elements of an enterprise. 2 lectures. Crosslisted as HNRS/IME 322.

#### HNRS 323. Modern America. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing or History major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area D1.

American history since 1900. Focus on domestic and foreign policy interactions, struggle of disenfranchised groups for social and political equality, and changes in culture and identity. 4 lectures. Crosslisted as HIST 322/HNRS 323. Fulfills GE Area D5.

#### HNRS 332. British Literature: 1660-1798. 4 units

GE Area C4; GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

In-depth exploration of the dominant themes and preoccupations of the Age of Enlightenment. Historical and cultural contexts of canonical and non-canonical literature emphasized to illustrate 18th century Britons' views of themselves and their changing world. May include such writers as Dryden, Behn, Defoe, Swift, Pope, and Johnson. 4 lectures. Crosslisted as ENGL/HNRS 332. Fulfills GE Area C4 and GWR.

#### HNRS 333. British Literature: 1798-1832. 4 units

GE Area C4; GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

In-depth exploration of the literature of the British Romantic period. Cultural, historical, and philosophic contexts will also be examined in both canonical and non-canonical works. May include such writers as Blake, Wordsworth, Keats, and Wollstonecraft. 4 lectures. Crosslisted as ENGL/HNRS 333. Fulfills GE Area C4 and GWR.

#### HNRS 334. Modern Europe, 1789-1914. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing or History major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and two lower-division courses in GE Area D. Recommended HIST 111.

Europe's 'long nineteenth century' reveals continuity and dramatic changes in politics, social structures and identities, forms of cultural expression, and scientific and technological knowledge. Topics include the French and Industrial revolutions; liberalism; nationalism; socialism; modernism; imperialism; and World War I. 4 lectures. Crosslisted as HIST/HNRS 334. Fulfills GE Area D5.

#### HNRS 335. Modern Europe, 1914-Present. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing or History major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and two lower-division courses in GE Area D. Recommended HIST 111.

Examination of twentieth-century European history. Topics include: First World War, World Economic Crisis, communism, fascism, mass culture, shifting gender roles, Second World War, Cold War, Velvet Revolution, and the European Union. 4 lectures. Crosslisted as HIST/HNRS 335. Fulfills GE Area D5.

#### HNRS 336. Social Ethics. 4 units

GE Area C4; USCP

Term Typically Offered: TBD

Prerequisite: Junior standing or Philosophy major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C2.

Examination of contemporary moral problems, solutions to these problems, and the arguments for these solutions, with emphasis on two or more of the following sample problem areas: abortion, suicide and euthanasia, capital punishment, family ethics, race relations, social justice, war, women's issues. 4 lectures. Crosslisted as PHIL 335/HNRS 336. Fulfills GE C4 and USCP.

#### HNRS 338. Critical Issues in American Politics. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C-or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area D1. Recommended: POLS 112 (GE Area D1).

Examination of significant social, legal, economic and political issues that face the country and how the basic institutions of government-national, state, local-are responding to them; assessment of policies to correct these problems. 4 lectures. Crosslisted as HNRS/POLS 338. Fulfills GE Area D5.

#### HNRS 340. Sexuality Studies. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C-or better; completion of one course in GE Area B1 with a grade of C- or better; and one lower-division course in GE Area D.

Sexuality in a cultural and historical context. Changing definitions of human subjectivity. The cultural and social regimes that control and create sexuality (including the 'invention' of homo/heterosexuality and the social, legal and political systems that define sexual ab/normality). Contemporary issues of sexual orientation and topics of sexuality in relation to gender and race. 4 seminars. Crosslisted as WGS/HNRS 340. Fulfills GE Area D5.

#### HNRS 341. American Literature: 1865-1914. 4 units

GE Area C4; GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

Analysis of literary Realism and Naturalism in their cultural and historical contexts. May include such writers as Whitman, Dickinson, Twain, Chopin, James, Wharton, Dreiser, Norris, and Crane who are seen to accommodate the sense of danger, doubt, and disorder of the time. 4 lectures. Crosslisted as ENGL/HNRS 341. Fulfills GE Area C4 and GWR.

#### HNRS 342. American Literature: 1914-1956. 4 units

GE Area C4; GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

The writers of the modern period and those of the early post-modern age, including writers marked by stylistic innovation and a willingness to challenge traditionally accepted standards. May include such writers as Hemingway, Fitzgerald, Stein, Hughes. 4 lectures. Crosslisted as ENGL/HNRS 342. Fulfills GE Area C4 and GWR.

#### HNRS 343. American Literature: 1956-Present. 4 units

GE Area C4; GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

In-depth study of American fiction, poetry, and drama written since 1956. How contemporary literature examines enduring American themes and breaks new ground with the inclusion of diverse voices. 4 lectures. Crosslisted as ENGL/HNRS 343. Fulfills GE Area C4 and GWR.

# HNRS 345. Women Writers of the Twentieth and Twenty-First Centuries. 4 units

GE Area C4; GWR; USCP Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

In-depth exploration of works of 20th and 21st century women authors within their historical and cultural contexts. Analysis of canonical and non-canonical writing by women of differing classes, races, ethnicities, and sexual preferences. Literary techniques through which texts reflect or challenge such cultural constructs as gender, identity, sexuality, motherhood, etc. The emergence of a female literary tradition. May include such writers as Adichie, Aoki, Lorde, Mukherkee, Olds, Rich. 4 lectures. Crosslisted as ENGL/HNRS 345. Fulfills GE Area C4, USCP, and GWR.

#### HNRS 347. African American Literature. 4 units

GE Area C4; GWR; USCP Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

The writings of African Americans from the end of the eighteenth century to the present. Individual works and literary trends among African Americans of various periods and contexts: intellectual, political, and cultural. 4 lectures. Crosslisted as ENGL/HNRS 347. Fulfills GE Area C4, USCP, and GWR.

# HNRS 350. The Scientific Revolution, c. 1500-1800. 4 units GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing or History major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area D1, D2, or D3. Recommended: One or more courses in GE Area B.

History of the intellectual, social, and cultural changes in the early modern period known as the 'Scientific Revolution.' Main topics include the Copernican Revolution, mechanical philosophy, natural history, and the social and material practices of early modern science. 4 lectures. Crosslisted as HIST/HNRS 350. Fulfills GE Area D5.

#### HNRS 352. Modern Drama. 4 units

GE Area C4: GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

Reading and analysis of world drama of the last 150 years, thereby enhancing student awareness of modern culture, history, ethics, politics, and the human condition. Design work, multi-media forms, art, music, and cinema as components or informing elements of the works under consideration. 4 lectures. Crosslisted as ENGL/HNRS 352. Fulfills GE Area C4 and GWR.

#### HNRS 353. Gender, Race, Culture, Science and Technology. 4 units

GE Area B7; GE Area F; USCP Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C-or better; completion of GE Area B1 with a grade of C- or better in at least one of the courses; and completion of GE Areas B2, B3, and B4.

Interdisciplinary examination of the complex relationships between gender, race, culture, science, technology in educational, work, knowledge production, policy, and ethical contexts. Topics may include reproductive, medical, genetic, and emerging technologies and exploration of efforts to create more socially responsible science/technology. 3 lectures, 1 activity. Crosslisted as ES 350/HNRS 353/WGS 350. Fulfills GE Area B7 or GE Area F; and USCP.

# HNRS 361. Honors Track - Research, International, and Community Service Experience. 1 unit

Term Typically Offered: W, SP Recommended: HNRS 265.

Completion of an approved Honors experience track in research, international study, or community service. Personal reflection on the experience. Peer evaluation. Presentation of the experience to the Honors and greater Cal Poly communities. For University Honors Program students only. 1 lecture.

#### HNRS 380. Literary Themes. 4 units

GE Area C4; GWR

Term Typically Offered: TBD

Prerequisite: Junior standing or English major; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and completion of GE Area C1.

Literature selected according to a particular theme. Emphasis on critical interpretation, aesthetic appreciation, and historical and cultural contexts. The Class Schedule will list topic selected. Total credit limited to 12 units. 4 lectures. Crosslisted as ENGL/HNRS 380. Fulfills GE Area C4 and GWR.

# HNRS 391. Appropriate Technology for the World's People: Development. 4 units

GE Area D5

Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C- or better; completion of one course in GE Area B1 with a grade of C- or better; and two lower-division courses in GE Area D.

A broad overview of international development and appropriate design for sustainability. Besides traditional classroom work, students work in teams to address problems with technical solutions. Collaboration with mentors from the university, private sector, and nonprofits serves to provide diverse background and project mentorship. 4 lectures. Crosslisted as HNRS/PSC/UNIV 391. Fulfills GE Area D5.

### HNRS 392. Appropriate Technology for the World's People: Design. 4

GE Area B7; GE Area F Term Typically Offered: TBD

Prerequisite: Junior standing; completion of GE Area A with grades of C- or better; completion of GE Area B1 with a grade of C- or better in at least one of the courses; and completion of GE Areas B2, B3, and B4. Recommended: UNIV 391 and completion of GE Areas D2 and D3.

Addresses the needs of international impoverished communities with technological solutions, which are inexpensive, ecologically sustainable, and socially appropriate. Group study of target communities, and design and construction of an appropriate technology prototype. Not open to students with credit in PSC/UNIV/HNRS 492. 3 lectures, 1 laboratory. Crosslisted as HNRS/PSC/UNIV 392. Fulfills GE Area B7 or GE Area F.

#### HNRS 400. Special Problems for Advanced Undergraduates. 1-4 units Term Typically Offered: F, W, SP

Prerequisite: Consent of Honors Program Director.

Individual investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

#### HNRS 411. New Media Arts I. 4 units

Term Typically Offered: TBD

Prerequisite: Junior standing; and completion of GE Area A with grades of C- or better.

Advanced-level presentation of new media theory, design and practice. Topics covered include, but are not limited to, interactivity theory, user-centered system design, cognitive psychology, media analysis, and basic web design theory. Total credit limited to 8 units. 4 lectures. Crosslisted as ENGL/HNRS 411.

#### HNRS 412. New Media Arts II. 4 units

Term Typically Offered: TBD Prerequisite: ENGL 411.

Advanced level of work with the primary technologies and design/critique theories currently at use in the professional creation of new media works. Lectures and readings expand upon material presented in ENGL 411. 4 lectures. Crosslisted as ENGL/HNRS 412.

# HNRS 424. Design of Museum Displays of Science, Engineering and Technology. 4 units

Term Typically Offered: TBD Prerequisite: GE Area B.

The design and creation of educational museum displays that highlight science, engineering, and technology. Projects done by multidisciplinary teams and for clients in the community. Emphasis on design, teamwork, service learning and project management. 3 lectures, 1 laboratory. Crosslisted as HNRS/UNIV 424.

#### HNRS 450. Solar Photovoltaic System Engineering. 4 units

Term Typically Offered: TBD

Prerequisite: one of the following: PHYS 104; PHYS 118; PHYS 121; or PHYS 141; and junior standing.

Engineering principles, design, and installation of solar photovoltaic power systems including grid-tie and off-grid systems. Photonic energy conversion, solar module engineering, solar power electronics, photovoltaic site planning, mechanical and structural considerations, permit processes, government incentives, and analysis of financial and investment issues. Field trips required. 3 lectures, 1 laboratory. Crosslisted as BRAE/EE/HNRS 450.

#### HNRS 461. Honors Capstone Seminar. 1 unit

CR/NC

Term Typically Offered: SP

Corequisite: Major-specific senior project.

Forum for graduating seniors to share their Honors experiences. Presentation and defense of a capstone project or experience before a diverse group of subject experts and laypersons. Seminars on communication and career guidance. For University Honors Program students only. Credit/No Credit grading only. 1 seminar.

#### HNRS 470. Selected Advanced Topics. 1-4 units

Term Typically Offered: TBD Prerequisite: Consent of instructor.

Directed group study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 lectures.

#### HNRS 471. Selected Advanced Laboratory. 1-4 units

Term Typically Offered: TBD Prerequisite: Consent of instructor.

Directed group laboratory study of selected topics for advanced students. Open to undergraduate and graduate students. The Class Schedule will list topic selected. Total credit limited to 8 units. 1 to 4 laboratories.

# HNRS 492. Appropriate Technology for the World's People: Design. 4 units

Term Typically Offered: TBD

Prerequisite: Junior standing and completion of GE Area B, or graduate standing. Recommended: UNIV 391, GE Area D2, and GE Area D3.

Addresses the needs of international impoverished communities with techno-logical solutions, which are inexpensive, ecologically sustainable, and socially appropriate. Group study of target communities, and design and construction of an appropriate technology prototype. Seminar paper required. Not open to students with credit in PSC/UNIV/HNRS 392. 3 lectures, 1 laboratory. Crosslisted as PSC/UNIV 492.

### HNRS 499. Honors Group Seminar. 1 unit

CR/NC

Term Typically Offered: TBD

Students in the Honors Program are required to take at least eight courses for honors credit before graduation. Taking an Honors course may not be possible due to scheduling conflicts or unavailability of courses. This course allows students to engage in honors-level work in a standard, non-honors course on a group basis. Credit/No Credit grading only. Total credit limited to 4 units, repeatable in same term. Must achieve a B or better in the related standard course. 1 seminar.