**HUMANITIES FOR ENGINEERS (HUEN)**

### Courses

**HUEN 1010 (3) Engineering, Ethics and Society**
Explores a wide variety of challenging and interesting humanistic themes (love, responsibility, ambition, etc.) in many forms (fiction, philosophy, plays, poetry, art, music, etc.). In small discussion-based classes, emphasizes the writing, public speaking and critical thinking skills needed to excel as a professional engineer. Fulfills College of Engineering writing requirement for first-year freshmen only.

**Requisites:** Restricted to students with 0-26 (Freshmen) College of Engineering majors only.

**HUEN 1843 (3) Special Topics**
Explores different important themes in the humanities; check with the department for specific semester topics.

**Repeatable:** Repeatable for up to 6.00 total credit hours.

**Requisites:** Restricted to students with 0-56 credits (Freshmen or Sophomore) College of Engineering majors only.

**HUEN 1850 (3) Engineering in History: The Social Impact of Technology**
Explores how engineering has shaped who we are, how we think, and what we think about, by examining preconceived notions of progress, property, time, and work. Textbook readings plus original sources in philosophy, literature, psychology, and economics provide a rich and stimulating tour of engineering history.

**Requisites:** Restricted to students with 0-56 (Freshmen or Sophomore) College of Engineering majors only.

**HUEN 2010 (3) Tradition and Identity**
Explores the place and possibility of personal identity both within and against the influence of tradition, including family, culture, language, and social, political and economic institutions. Via literature and film, wrestles with the nature of freedom, self-determination, and belonging.

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.

**HUEN 2020 (3) The Meaning of Information Technology**
Surveys the history of information technologies and modern techniques of information production, storage, transmission, and retrieval. Emphasizes understanding not only the technological transformations in interpersonal, organizational, and mass communication, but also the technological, social and political changes that underlie the movement toward a digital society.

**Equivalent - Duplicate Degree Credit Not Granted:** ATLS 2000

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.

**HUEN 2100 (3) History of Science and Technology to Newton**
Spans invention and discovery from the Stone Age to the age of Newton, raising questions about culture, history, and personal expectation; studies Pyramids, odometers, cathedrals, Galileo, etc., on the way.

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.

**HUEN 2120 (3) History of Modern Science from Newton to Einstein**
Surveys the great discoveries and theoretical disputes from Newtonian celestial mechanics to the theory of relativity. Includes physics, astronomy, chemistry, geology, and biology; closely examines scientific method, evolution, light and quantum theory. Uses original sources by Newton, Faraday, Lavoisier, Darwin, etc., for immediate contact with the great minds in science.

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.

**HUEN 2130 (3) History of Modern Technology from 1750 to the Atomic Bomb**
Surveys the great innovations from the Steam Age to the Atomic Age: transportation, modern construction, communications, internal combustion, etc. Supplements textbook accounts with drawings, patents, and original selections by Edison, Carnegie, Tesla, Bell, etc. Studies the sociological impact of social change via contemporary sources in literature, philosophy, painting and film.

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.

**HUEN 2210 (3) Engineering, Science, and Society**
Explores challenges that engineering and science pose for society plus the ways that societies shape or impede science and engineering. Case studies range from contemporary issues (global warming, nuclear weapons, and genetic engineering) to classic cases (the execution of Socrates). Core texts in the Western Tradition supplement contemporary articles and films.

**Requisites:** Restricted to College of Engineering majors only.

**HUEN 2260 (3) Gaining a Global State of Mind for Effective Engineering Practice**
Ranges across cultures and centuries to reveal many dimensions of globalization; shows how cultural awareness enhances effectiveness in the increasingly global profession of engineering. This highly interactive course uses history, philosophy, geography, religion, economics, the arts, etc., to illustrate the complexity of global engineering’s cultural context. Concurrently, it encourages new insights into culture and identity, both at home and abroad.

**Recommended:** restricted to students in the College of Engineering and Applied Science.

**HUEN 2360 (3) Lower Division: Independent Study**
Offers opportunity for lower-division Engineering students to do independent study work in humanities, appropriate to their academic level. Subject determined, with a Herbst instructor, to fit the needs of the student. Department and faculty consent required.

**Repeatable:** Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.

**Grading Basis:** Letter Grade

**HUEN 2843 (1-3) Special Topics**
Explores different important themes in the humanities; check with the department for specific semester topics.

**Repeatable:** Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Restricted to College of Engineering (ENGRU) undergraduates only.
HUEN 3100 (3) Seminar in Engineering, Ethics & Society
Introduces students to foundational texts in personal ethics (from philosophy, literature, history, and the arts). Class discussion puts these texts into context for students preparing to enter careers in engineering and applied science. Includes extensive writing. Fulfills the College of Engineering & Applied Science writing requirement. Department prerequisite: a minimum GPA of 3.0.
Requisites: Restricted to students with 57-180 credits (Junior or Senior) College of Engineering students only.

HUEN 3200 (3) Humanities for Engineers 2
Continues HUEN 3100’s discussion of the human condition by exploring culturally and historically significant works of multiple genres in small-group seminars. Alert class participation is required, and writing skills will be honed through regular assignments.
Requisites: Requires prerequisite course of HUEN 3100 (minimum grade D-). Restricted to students with 57-180 credits (Junior or Senior) College of Engineering students only.

HUEN 3350 (3) Gods, Heroes and Engineers: The Western Quest for Excellence
Investigates the intensely competitive quest of the ancient Greeks for excellence in everything from art and literature to science and war and also the odyssey of the mind generated by this quest, culminating in our modern world.
Requisites: Restricted to students with 57-180 credits (Junior or Senior) College of Engineering students only.
Grading Basis: Letter Grade

HUEN 3360 (3) Gaining a Global State of Mind for Effective Engineering Practice
Ranges across cultures and centuries to reveal many dimensions of globalization; shows how cultural awareness enhances effectiveness in the increasingly global profession of engineering. This highly interactive course uses history, philosophy, geography, religion, economics, the arts, etc., to illustrate the complexity global engineering's cultural context. Concurrently, it encourages new insights into culture and identity, both at home and abroad.
Requisites: Restricted to students in College of Engineering and Applied Science (ENGR) only.

HUEN 3430 (3) Ethics of Genetic Engineering: A Multidisciplinary Approach
Investigates the metaphorical, ideological and scientific constructs that inform debates over the genetic modification of humans, animals and plants. Begins with a close reading of Shelley’s Frankenstein, proceeds to a consideration of philosophical arguments for and against human modification and concludes with a consideration of the scientific and political contexts that inform the regulation of genetically modified foods.
Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.
Grading Basis: Letter Grade

HUEN 3543 (3) History of Western Medicine
Introduces the intriguing and appalling history of western medicine, from prehistory to the present. Includes grave-robbers, leeches and the Black Death. This course links past to present, in discussion of evidence, innovation, ethics and standards of medical education and practice. Based on original sources, textbook accounts and modern scholarship, and featuring student presentations on the Disease of the Week.
Requisites: Restricted to College of Engineering (ENGRU) undergraduates only.
Grading Basis: Letter Grade

HUEN 3700 (3) Culture Wars in Rome
Investigates in Rome, Italy (during Maymester), the cultural contrasts among three different cities: ancient, pagan, aristocratic Rome; medieval, Christian, theocratic Rome; and modern, secular, democratic Rome. Draws on evidence from Roman literature, politics, art and architecture. Must have completed a minimum of 26 credit hours by start of course. Requires some preparatory work in Boulder.

HUEN 3720 (3) Voices of Vienna: Freud, Wittgenstein, Mozart
Study and visit Vienna, a city famous for Mozart’s music, Freud’s psychology and Wittgenstein’s philosophy. As the seat of the Habsburg Empire, Vienna was a rich cultural and political center; it was a crossroads for international trade and exciting new ideas. As the lively capital of present-day Austria, it remains in the forefront of social change.
Grading Basis: Letter Grade

HUEN 3750 (3) Xi’an, China: Self-Awareness and Images of the Other
Explores Chinese culture abroad, focusing on ideas of self and other within special historical, social, political, and economical circumstances. Chinese and American concepts of self and society, and of individual, collective, and national identities will be analyzed. Held on the campus of Xi’an Jiaotong University, China.
Recommended: Prerequisite completion of lower-division Humanities course.
Additional Information: Departmental Category: Asia Content

HUEN 3840 (1-3) Independent Study
Offers an opportunity for students to do independent work in the humanities. Subject arranged to fit the needs of the student. Department consent required.
Repeatable: Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.
Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) College of Engineering students only.

HUEN 3843 (1-3) Special Topics
Explores different important themes in the humanities, check with department for specific semester topics.
Repeatable: Repeatable for up to 6.00 total credit hours.
Requisites: Restricted to students with 57-180 credits (Junior or Senior) College of Engineering students only.

HUEN 4200 (3) Humanities for Engineers 4
Provides opportunity to pursue a variety of humanistic themes related to Herbst Humanities Program.

HUEN 4800 (1) Leadership & Ethics in the Real World

HUEN 4830 (3) Special Topics
Explores different important themes in the humanities; check with department for specific semester topics.
Repeatable: Repeatable for up to 6.00 total credit hours.
Requisites: Requires prerequisite course of HUEN 1010 or HUEN 2210 or HUEN 3100 (minimum grade D-). Restricted to students with 57-180 credits (Junior or Senior) College of Engineering students only.