

Global Engineering Minor
Available beginning Fall 2016

In recognition that all engineering is global, engineers need to learn how to function effectively in this globalized industry. The new undergraduate Minor in Global Engineering is designed to expand students' understanding of how to operate in an international context from an engineering perspective and understand the impact of engineering solutions in a global, economic, environmental, and societal context. This translates to the capacity to work in an international team from within an office located domestically or internationally. These work environments necessitate that students understand multinational contexts as well as local office and nongovernmental agency contexts, and that they can make decisions in often complex and uncertain circumstances.

Admission Requirements:

To enroll in the Minor in Global Engineering Certificate, students must:

- be admitted to the College of Engineering and Applied Science;
- have a minimum 2.50 cumulative GPA;
- complete a change of major form to officially add the minor; and
- complete a minor enrollment form and submit it to the Faculty Director (Bernard Amadei) or Program Manager (Robyn Sandekian) of the Global Engineering Minor.

Required courses

1. **Special Topics: A Global State of Mind** (HUEN 2843, 3 credits)
 How do different cultures treat time, space, family, faith, and honor? How can answering this question give insight into American cultural values? Even if you never leave the USA, you'll find this course fascinating. If you want to work abroad, this course is essential to developing a global state of mind.
2. **One language course** at the fourth semester level (XXXX 2020 or 2120, typically 3-5 credits), or higher, depending on the student's prior language preparation.
3. **Two Global Perspective Courses** (6 credits including at least 3 upper division) selected from an approved list. Students should take at least one course focused on the region that matches their studied language.

Course* **	Course Name
ANTH 4500	Cross-Cultural Aspects of Socioeconomic Development (not yet H&SS approved)
ANTH 4505	Globalization and Transnational Culture (not yet H&SS approved)
COMM 2400	Discourse, Culture, and Identities
COMM 3410	Intercultural Communications
ECON 2020* (4cr)	Principles of Macroeconomics
EHON 1151	Critical Encounters
ENVS 4027	Inequality, Democracy, and the Environment
GEOG/WMST 3672	Gender and the Global Economy
GEOG 3682	Geographies of International Development (not yet H&SS approved)
GEOG 3692	Introduction to Global Public Health (new course, not yet H&SS approved)
GEOG 3742	Power, Place and Contemporary Culture
HIST 2126	Issues in Modern US Politics and Foreign Relations
HUEN 2020	The Meaning of Information Technology

DRAFT

HUEN 2843	Infomatica Global (same as HUEN 2020, but taught in Spanish) Being discontinued, but counts for those who completed it
LING 3545	World Language Policies (not yet H&SS approved)
PSCI 2012	Introduction to Comparative Politics
PSCI 2223	Introduction to International Relations
PSCI 3092	Comparative Political Economy (not yet H&SS approved)
PSCI 3143	Current Affairs in International Relations
PSCI 3163	American Foreign Policy
PSCI 3193	International Behavior (not yet H&SS approved)
PSCI 4012	Global Development
PSCI 4193	International Political Economy (not yet H&SS approved)
PSCI 4252	Politics of Ethnicity and Nationalism (not yet H&SS approved)
SOCY/WMST 3012	Women and Development
WMST 2600	Gender, Race, and Class in a Global Context

* All courses are three credit hours unless noted in parenthesis after the course number

** The student is responsible for identifying and completing any required pre-requisites

4. **One Regional/Local Perspective Course** (3 credits) selected from the following list, with a focus on the region that correlates to the student’s selected language. For example, if the student’s language area is Spanish, then student should choose a course that focuses on a Spanish-speaking region. An additional, upper-division language course in the student’s language of study can be used to fulfill this requirement.

Course* **	Course Name
ANTH 1105	Exploring a Non-Western Culture: Tibet
ANTH 1115	The Caribbean in Post-Colonial Perspective
ANTH 1135	Exploring a Non-Western Culture: TBA
ANTH 1140	Exploring a Non-Western Culture: The Maya
ANTH 1145	Exploring a Non-Western Culture: The Aztecs
ANTH 1150	Exploring a Non-Western Culture: Regional Cultures of Africa
ANTH 3160	Peoples of the South Pacific (not yet H&SS approved)
ANTH 4050	Anthropology of Jews and Judaism (not yet H&SS approved)
ANTH 4760	Ethnography of Southeast Asia and Indonesia (not yet H&SS approved)
ARAB 1011	Introduction to Arab and Islamic Civilizations
ARTH 2049	Introduction to Roman Art and Architecture (not yet H&SS approved)
CEES 2002	Introduction to Central and East European History since 1770
CHIN 1012	Introduction to Chinese Civilization
CHIN 3331	Culture and Literature of Late Imperial China (not yet H&SS approved)
CHIN 3341	Literature and Popular Culture in Modern China
ETHN 2014	Themes in American Culture 2
FRSI 1011	Introduction to Persian Civilization (not yet H&SS approved)
GEOG 3812	Mexico, Central America, and the Caribbean (not yet H&SS approved)
GEOG 3822	Geography of China
GEOG 3862	Geography of Africa (not yet H&SS approved)
GRMN 1601	Germany Today
GRMN 3030	Business German
GRMN 4301	Gender, Race, and Immigration in Germany and Europe
HIND 1011	Introduction to South Asian Civilizations
HIST 1228	Introduction to Sub-Saharan African History Since 1800
HIST 1308	Introduction to Middle Eastern History

DRAFT

HIST 1438	Introduction to Korean History
IAFS 3500/HIST 4190	French Connections: Contemporary France and America in Historical Context
ITAL 1500	That's Amore: Introduction to Italian Culture
JPNS 1012	Introduction to Japanese Civilization
JWST 2350	Introduction to Jewish Culture
JWST 3600	Contemporary Jewish Societies
PORT/SPAN 3220	Latin American Culture: Spanish America and Brazil (not yet H&SS approved)
PORT 3230	Lusophone Cultures: Brazil, Portugal, and Lusophone Africa (not yet H&SS approved)
PORT 3270 (6 credits)	Development, Government, and Entrepreneurship in Brazil (not yet H&SS approved)
PSCI 3032	Democracy, Inequality and Violence in Latin America.
PSCI 3052	Gender and Politics in Latin America (not yet H&SS approved)
PSCI 3072	Government and Politics in Southeast Asia (not yet H&SS approved)
PSCI 3082	Political Systems of Sub-Saharan Africa
RLST 2610	Religions of South Asia
RLST 2620	Religions of East Asia
RUSS 2221	Introduction to Modern Russian Culture
RUSS 3601	Russian Culture Past and Present
RUSS 4301	American-Russian Cultural Relations
SCAN 2201	Introduction to Modern Nordic Culture and Society
SCAN 3201	Contemporary Nordic Society and Culture
SEWL 2000	America, the Environment, and the Global Economy
SPAN 3200	Spanish Culture and Civilization
SPAN 3230	Discovering Barcelona: Culture and Heritage (not yet H&SS approved)
SPAN 3240	Catalan Culture 1: Nation and Art (not yet H&SS approved)
SPAN 3270	Barcelona: Understanding Local and Immigrant Cultures

* All courses are three credit hours unless noted in parenthesis after the course number

** The student is responsible for identifying and completing any required pre-requisites

DRAFT

5. One upper division technical elective focused on topics relevant to global engineering (3 credits)

CVEN 4147	Civil Engineering Systems
CVEN 4718	Mechanics and Dynamics of Glaciers
CVEN 4837/5837	Sp. Topics: A Systems Approach to Global Engineering
CVEN 5393	Water Resources System and Management
EMEN 4200	Engineering and Entrepreneurship for the Developing World
ENVS 3521	Climate Politics and Policy
ENVS/GEOL 3520	Energy and Climate Change: An Interdisciplinary Approach
ENVS/PHYS 3070	Energy & the Environment
GEOG 3351	Biogeography
GEOG 3402	Natural Hazards
GEOG 4103	Introduction to Geographic Information Science
GEOG 4732	Population Geography
GEOG/GEOL 4093	Remote Sensing of the Environment
GEOL 3040	Global Change: The Recent Geological Record
GEOL 3050	GIS for Geologists
GEOL 3520	Energy & Climate Change: An Interdisciplinary Approach
GEOL 3950	Natural Catastrophes and Geologic Hazards

The courses listed here are suggestions only. Students must check with their departmental advisor to verify what counts as a tech elective for their respective majors.

6. Global Experience (e.g., A CU-approved study, research, or internship abroad, or equivalent experience by petition).

We *strongly* encourage students who choose their global experience in coherence with their language/regional course selection.

Additional Policies Relevant to the Minor

1. Grandfathering policy: Students who entered the College of Engineering and Applied Science prior to fall 2016 and made progress towards meeting the requirements of the Undergraduate Certificate in Global Engineering or the International Engineering Certificate will be able to complete that credential if they desire. Alternatively, those students may switch to the Minor in Global Engineering and meet all applicable requirements stated for the new program.
2. AP/IB Credit. Students may count up to 6 credits of Advanced Placement (AP) or International Baccalaureate (IB) towards the requirements
3. Transfer Credit. Students may count up to 9 credits of transfer coursework to fulfil the requirements for the minor.
4. Pass/Fail. Students may not enroll in courses required for the minor using the pass/fail grading option.
5. Overlapping Credits Between Two Minors: Students may count up to 6 credits from another minor to meet the requirements of the Global Engineering Minor. PLEASE NOTE: A certificate in International Engineering cannot be awarded if the student is completing a major or minor in the same language.
6. GPA Requirements. In order to earn the minor, students to have a minimum 2.25 average in all courses for the minor; in addition, each course must be passed with a D- or better. However, according to College rules, courses required as pre-requisites for higher level courses must be completed with a C- or better.
7. Modifications for International Students. For international students enrolled in the College of Engineering and Applied Science, the Global Experience requirement is already met. The language requirement may be modified if the student can already demonstrate skills at the required level.

DRAFT

Revision details:

4/6/2016:

1. Corrected course number for ECON 2020 Macroeconomics;
2. Relisted HEUN 2843--It will count as Global Perspective Course for those who completed it prior to discontinuance.
3. Corrected placement of PSCI 2012. It counts towards GLOBAL perspective, not LOCAL/REGIONAL

4/7/2016

1. Added GRMN 3030 Business German as allowable course towards the LOCAL/REGIONAL requirement.