

February 2020

## **GLOBAL ENGINEERING PROGRAM**

Robert R. McCormick School of Engineering and Applied Science

**Purpose:** It is increasingly important for our undergraduates to engage in the global technological community, which includes professional and academic institutions outside of the United States. Preparation to enter such a global technological landscape transcends mere classroom preparation and requires service learning, studying, researching, living, and/or working abroad.

This program is designed to structure a path whereby students can successfully incorporate significant international experience into their already rigorous engineering curriculum. This program will encourage the development of formal ties between Northwestern Engineering and educational, research, and engineering organizations around the world, by engaging the Engineering School's most valuable asset – its students.

Successful completion of this program will be include in your undergraduate transcript.

### **Requirements:**

A Student must apply for §1. CANDIDACY in time to be considered for the *Global Engineering Program*. They will then have to satisfy the §2. LANGUAGE / CULTURE REQUIREMENT, conduct an §3. EXPERIENCE ABROAD, and write a one-page §4. FINAL REPORT as described below:

1. CANDIDACY:

Students must apply for candidacy for a *Global Engineering Program* using the form below (Appendix I). Candidacy should be requested in conjunction with the declaration of an undergraduate major, but must be declared before the end of the junior year. For students in a 5-year BS, BS/MS, co-op, intern, or double-major program, candidacy must be declared before the end or the pre-senior year.

2. LANGUAGE/CULTURE REQUIREMENT (3 units):

The requirements for (a), (b) or (c) below can be partially completed while abroad.

Language and Culture Option:

(a) Language requirement (2-3 units) – Complete with an average grade of B or higher two (2) or more quarters of foreign language study, one (1) quarter of which must be completed *before going abroad*.

(b) Culture requirement (0-1 unit) – Complete with an average grade of B or higher additional quarters of social, historical, or cultural electives related to the country being visited, such that the total of Language and Culture requirements equals at least 3 units.

Culture-for-Language Substitution:

Students with prior college-level certified language proficiency or AP language credit may reduce the number of Language requirements in point (a) and increase the number of

Culture requirements in point (b) by the number of prior earned language credits. The total of non-AP Language and Culture requirements taken at Northwestern must still equal at least 3 units.

3. EXPERIENCE ABROAD (0 units):

Study Abroad Option:

(a) Study Abroad – at least 1 full academic quarter studying abroad in a program whereby a full academic load of academic transfer credit is obtained. At least one technical course must be taken while abroad and with credit transfer.

Co-Op, Internship, Service Learning, or Research option (0 units):

(b) Co-Op – CRDV 310-X-GM: International Cooperative Engineering Education at least 8 weeks abroad in industrial co-op experience related to engineering major

(c) Internship – CRDV 311-X-GM: International Engineering Internship

at least 8 weeks abroad in industrial internship experience related to engineering major

(d) Service Learning – CRDV 312-X-GM: International Engineering Service Learning at least 8 weeks abroad working on a project abroad that employs engineering skills

(e) Research – CRDV 313-X-GM: International Engineering Research Experience at least 8 weeks abroad in university or industrial lab research experience

4. FINAL REPORT:

File a Global Engineering Report to the Global Initiatives office of Northwestern Engineering which must include:

- A one-page single-spaced report between 250-300 words describing achievements for items § 2 and § 3 above (Microsoft word .docx attachment, 1” margins, Times 12 point font.)
- 2 digital photographs: One of the student actively engaged in their engineering efforts in the place of work or study, one of the student at a cultural site/event or social occasion (.jpg format attachments)

**Resources for Global Engineering Program:** Students are encouraged to seek opportunities that are coordinated by Northwestern University and the Northwestern Engineering offices, namely: (a) Study Abroad: the Global Learning Office (GLO), (b) Research: the Office of Fellowships, faculty research advisors at Northwestern, Faculty Ambassadors in Northwestern Engineering, (c) Internships / Co-Ops: the Northwestern Engineering Career Development Office, and (d) Service Learning / Projects: the Buffett Institute and Global Engagement Studies Institute (GESI), as well as student organizations such as Engineers for a Sustainable World.

**Administration of Global Engineering Program:** The Director of Engineering Global Initiatives is responsible for approving students’ (§ 1) candidacy into the program, (§ 2) foreign language requirement, and (§ 3) experience abroad. Final reports (§ 4) will be reviewed in addition by the Assistant Dean of Undergraduate Engineering and/or the Associate Dean for Undergraduate Engineering.

Appendix I: Application for Global Engineering Program attached on following page.

# GLOBAL ENGINEERING PROGRAM

## Application Form

Name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Date of submission for candidacy: \_\_\_\_\_

Program of study (circle all that apply to your current intended program):

BS    BS/MS    Co-Op    Internship    Double-Major

Major: \_\_\_\_\_ 2nd major (if applicable): \_\_\_\_\_

(Note – students must have registered their major to apply)

Intended Abroad experience at time of application (check all that apply):

Study Abroad     Co-Op (CRDV 310-X-GM)     Internship (CRDV 311-X-GM)  
 Service learning (CRDV 312-X-GM)     Research (CRDV 313-X-GM)

Intended Language/Culture Courses:

Course #1 \_\_\_\_\_ Course #2 \_\_\_\_\_ Course #3 \_\_\_\_\_

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DO NOT WRITE BELOW THIS LINE

TO BE COMPLETED BY ENGINEERING GLOBAL INITIATIVES OFFICE

Date of receipt: \_\_\_\_\_

Completed abroad experience (check all that apply):

Study Abroad / Exchange     Research     Co-Op     Internship  
 Service learning

Completed Language/Culture Courses:

Course #1 \_\_\_\_\_ Course #2 \_\_\_\_\_ Course #3 \_\_\_\_\_

First abroad experience: Start & end date: \_\_\_\_\_ / \_\_\_\_\_

Location: City, Country: \_\_\_\_\_

Institution abroad (if applicable): \_\_\_\_\_

NU Coordinating office (check all that apply):

Global Learning Office     Office of Fellowships

Engineering Career Development Office

Second abroad experience (if applicable): Start & end date: \_\_\_\_\_ / \_\_\_\_\_

Location: City, Country: \_\_\_\_\_

Institution abroad (if applicable): \_\_\_\_\_

NU Coordinating office (check all that apply):

Global Learning Office     Office of Fellowships

Engineering Career Development Office

Receipt date of final report: \_\_\_\_\_ Approval of final report (initial here): \_\_\_\_\_

Approval Signature & Date:

Director Global Initiatives \_\_\_\_\_

Undergrad Dean of Engineering \_\_\_\_\_