

How to Pursue a Global Engineering Development Experience

The U.Va. School of Engineering and Applied Science (SEAS) offers a wide range of opportunities for global engagement — from collaborative capstone projects to independent research. International capstone projects have included water engineering in Cameroon, fuel delivery optimization in Brazil, and sustainable power and sanitation systems for rural schools in Uganda. In addition, through independent research projects, engineering students have designed and constructed biodigesters for producing methane for cooking in South Africa and worked to improve health care in Nicaragua.

What is global engineering development?

Global engineering development (GED) is the application of engineering skills and knowledge in service to the needs of developing communities. Projects are typically multidisciplinary and require a very high degree of cultural awareness as well as good working knowledge of a second language.

Getting Started

While there is no “one size fits all” global engagement approach or program, we have collected some helpful information.

- **Service, Language and Culture (SLC)** courses are designed to prepare you for your international experience. Such preparation is an essential prerequisite for sustained, mutually beneficial partnerships across cultural, social and linguistic barriers. Completion of at least one SLC course prior to engaging in any international service learning project is required. Check the course offering directory for information on current offerings.
- **Applied Language for Professionals (ALPs)** courses are an alternative to traditional language courses and facilitate practical speaking skills. ALPs are not a substitute for traditional language courses, but are intended to prepare students for project work abroad. Check the course offering directory for information on current offerings.
- **A Global Engineering Certificate** is available for students who meet established requirements. The certificate is reflected in the student’s transcript, in recognition of an exceptional level of achievement in global engineering service and learning. For further information visit www.seas.virginia.edu/studyabroad/gecertificate.
- SEAS is a member of the national organization of **Engineering Projects in Community Service (EPICS)**. EPICS schools participate in programs providing opportunities for engineering students to engage in service learning projects within their local communities. Students interested in learning more about EPICS may go to www.seas.virginia.edu/epics. First-year engineering students also have the option of joining a special, EPICS-based section of ENGR 162 Intro to Engineering, which focuses on the application of engineering in service to the local community.
- **Engineering in Context (EIC)** is a multidisciplinary capstone engineering design program, which allows interested students to propose, develop and implement their own projects. For further information visit www.seas.virginia.edu/eic.
- **Engineering Students Without Borders** is an organization that engages in socially responsible engineering in impoverished regions of the world. For further information visit www.student.virginia.edu/~eswb.

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