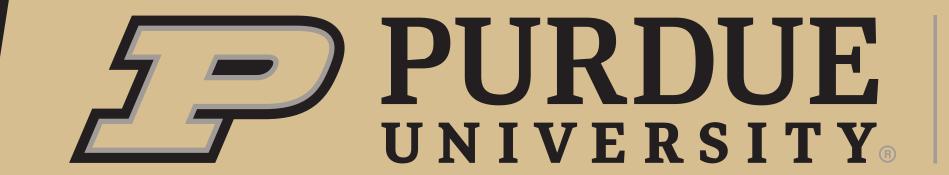
# Graduate Global Engineering Program on Purdue Online



**College of Engineering** 

### **OVERVIEW**

Purdue University does not have a graduate program focused on international development. There are relevant classes that can be taken in variety of colleges across campus (agriculture, liberal arts, engineering) and undergraduate degrees (ex. Humanitarian Engineering).

There is increasing demand and interest from students and working professionals to pursue an advanced interdisciplinary degree or certificate focused on how engineering can overcome shared global challenges.

Working closely with Purdue Online and College of Liberal Arts, an online program has been developed leveraging existing courses across campus. The program will be housed in the Graduate School's Interdisciplinary Graduate Programs and awaits College of Engineering leadership approvals.

### What is International Development?

The concept and idea that countries and people have differing levels of economic or human development on an international scale. The topic covers a broad range of topics like poverty, conflict, security, social and gender inequality, sustainability, education, the environment and the relationship between local, national and global structures and processes in a variety of political contexts.



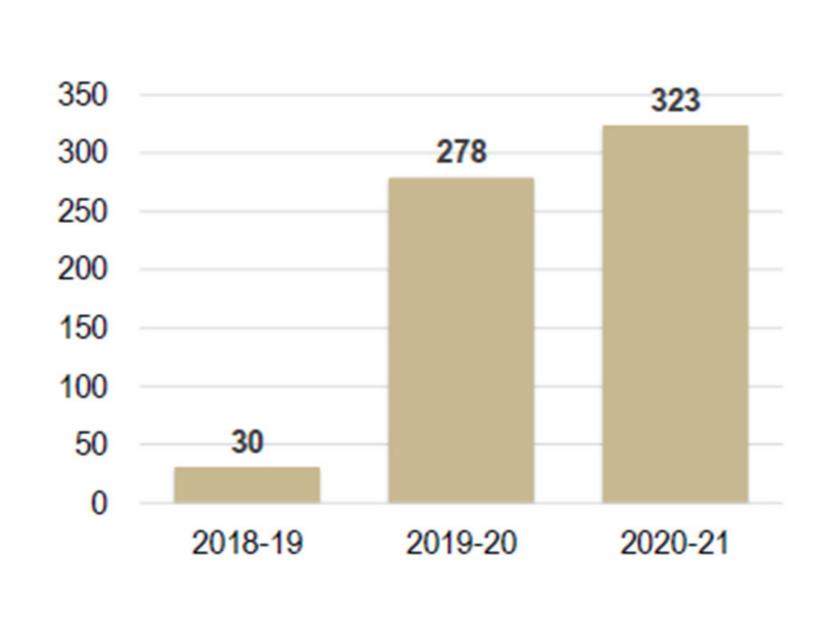
University of College Boulder's Mortenson Center in Global Engineering is an academic program transforming the understanding, application and evaluation of engineering to address some of the world's most pressing issues. Photo Denver skyline. Reference ABC News

### Market Standards

The National Science Foundation provided UC Boulder with funding to lead a multi-year effort to define emerging pedagogy in global engineering. Along with thirty-eight North American university programs and seventeen organizations, Purdue's Global Engineering Programs and Partnerships Office participated a two-day workshop to help identify trends and potential standards for "global engineering" degrees that would be documented in a white paper.

Titled "Aligning Global Engineering Graduate Program Learning Objectives and Approaches; Review and Recommendations of an Interdisciplinary Working Group" the paper emphasizes the value academic institutions see in interdisciplinary degrees and the importance of defining a shared approach to engineering and international development disciplines.



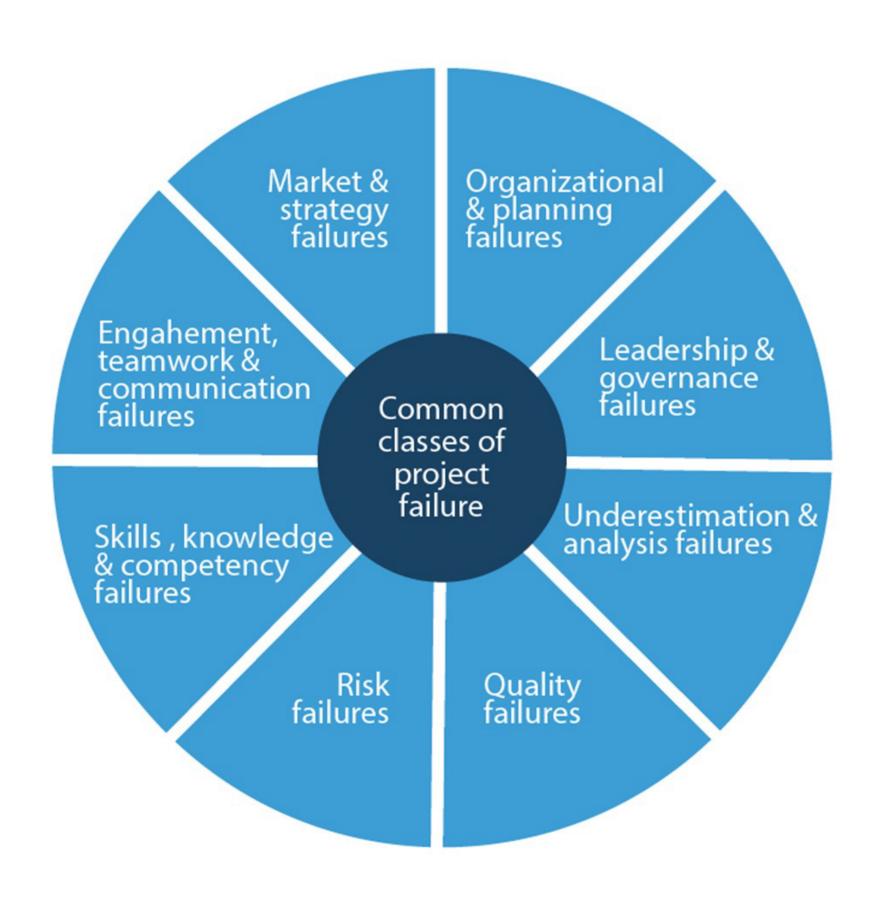


Purdue Degree+ offers a path for students to complete a degree from the College of Liberal Arts along with a degree from another academic area. Since 2018 the demand for Degree+ offerings have increased.

# Increasing Interest

There are several interdisciplinary graduate programs at top-tier, R1 universities (ASU, Arizona, Berkeley, etc.) focused on global engineering. Purdue's College of Engineering offers a variety of degrees that include elements of other disciplines, such as EEE and BME, but international development requires expertise in anthropology, gender, politics, economics among others.

Leveraging Purdue's brand strength in the field of Engineering and approved interdisciplinary graduate academic program framework, a graduate degree, offered online, could offer students an opportunity to curate their own degree needs based on their chosen career path. It will also enable Purdue Online to reach career professionals who may need to satisfy existing or emerging workplace demands.



Project failure is not whether the project finished on time or in budget but whether the project achieved objectives.

Categories of project failure according to project management literature are noted here; reference Calleam Consulting Ltd.

## Need Continues

Official Development Assistance in 2019 reached \$152.8 Billion. This does not include Private Philanthropy for Development which reached \$9 billion in 2019. Projects will continue to fail unless development professionals have a blend of skills and capabilities required to perform their work.

As noted in the above graph, skills is only one of the eight major reasons projects fail. Critical to the "skills" are a variety of other needs that can be addressed through interdisciplinary education. Purdue's engineering academic strengths, coupled with programs offered by other colleges, can help prepare students with the knowledge and skills they need to be successful in the international development context.