The Cornell University Chapter of the
Engineers In Action Bridge Program:
Project Team Application Fall 2025

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Hello, applicant! Thank you for your interest in applying for the Cornell University Chapter of Engineers in Action.

Engineers in Action's mission is to provide isolated communities with critical infrastructure: footbridges that provide access to health services, education, and employment, and clean water distribution systems. Every year, we develop the design for a project during the school year, learn about the language and culture in the community we are serving, and fundraise for the build. In the summer, members of our team travel to our project sites, typically in the Kingdom of Eswatini, and construct the project together with the local community. In the past, our chapter has focused on bridge projects, with five suspended footbridges and one vehicular bridge project prior to 2024. In 2024, our chapter was chosen by EIA to pilot a WASH (Water, Sanitation, and Hygiene) project, in addition to completing a footbridge project. In 2025 our chapter was again chosen to pilot EIA's first student-lead suspension footbridge. Moving forward, our chapter will be taking on both a suspension footbridge project and a WASH project each year, so we are looking for students who are passionate about building and traveling!

Feel free to make your answers longer than the spaces provided but please do not write essays and keep the answers succinct.

Upper-level Students: Please email applications to eiacornelluniversity@gmail.com by September 4th at 11:59 PM.

First-year and Transfer Students: Please email applications to eiacornelluniversity@gmail.com by October 16th at 11:59 PM.

Please send your application as a PDF and attach your resume to the email. Format the subject of your email as *EIA Fall Application* and title your application and resume as *LastName_FirstName_Application* and *LastName_FirstName_Resume* (ex: Smith_John_Application).

After applications, we will be conducting interviews for those invited. We have a lot of fun things as well as important work ahead of us, so we really hope that you will apply! If you have any questions do not hesitate to email us.

In addition, make sure to fill out the general project team application!

Thanks!
EIA Leadership

Introduction

Name:
Year:
Major:
*If you are undecided on a major please elaborate on your interest areas. Our team welcomes members of all majors!

1. How and when did you first hear about our organization?

2. Did you attend an info session?

3. Why do you want to be a part of EIA? (250 words max).

4. How do you personally function on a team? What do you see as the most important teamwork skills? (250 words max).

Subteam Descriptions

EIA has 4 subteams: Bridge, WASH, Business, and Cultural. Each subteam has different work on campus, outlined below, but members of all subteams are encouraged to travel!

Bridge: This engineering subteam works on the full design and preparation process for the bridge project. The subteam spends time in the fall semester learning important concepts needed for bridge design such as bridge anatomy, design calculations, and construction steps, as well as developing technical skills needed in AutoCAD and Excel. In the spring, the subteam works on the design for the year's bridge project. This process includes working with professional engineers from EIA on design and optimization in addition to professional reports and presentations. The team also participates in hands-on workshops to learn skills including surveying, concrete mixing, and masonry. This subteam could be a good fit if you are interested in a collaborative environment to learn about the full process of an in-depth engineering process, especially if you are interested in civil engineering or any similar physics related field. (The subteam is not limited to these majors and is open to anyone who is interested in infrastructure and engineering design and implementation.)

WASH: This engineering subteam works on the full design and construction preparation process for the WASH project. WASH stands for Water, Sanitation, and Hygiene, with our project focusing on designing and implementing a clean water distribution system. During the fall semester, the subteam spends time learning about important concepts for WASH designs such as water supply and design calculations, solar calculations for energy sources, water quality testing, and pipe construction implementation, as well as technical skills needed in AutoCAD, component selection, EPANET, and Excel. During the spring semester, the subteam focuses on designing a solar powered water distribution system for a school in Eswatini. This process includes working with professional engineers from EIA on design and constructability in addition to professional reports and presentations. The team also participates in hands-on workshops to learn skills such as concrete mixing and pipe threading. This subteam could be a good fit if you are interested in a collaborative environment to learn about the full process of an in-depth engineering process, especially if you are interested in environmental engineering and/or clean energy related projects. (The subteam is not limited to these majors and is open to anyone who is interested in WASH systems and engineering design and implementation.)

Cultural: The cultural subteam plays a crucial role in engaging the team in Siswati culture. Members of the subteam will hold workshops and lead presentations that introduce the team to Eswatini's language and cultural activities. This engagement not only prepares the travel team for the summer build, but also strengthens their ability to connect with the local community. By promoting cross-cultural competence, the cultural subteam ensures that the project is culturally respectful and empowers the team to become more globally aware citizens. This subteam is a good fit for individuals interested in global development, who thrive in collaborative environments, and are eager to build meaningful, cross-cultural connections.

Business: The business subteam focuses on the team's financial management, fundraising, and outreach. Responsibilities include managing the team budget, creating and implementing a fundraising plan, organizing recruitment outreach, maintaining web and social media presence, and applying for grants and sponsorships. Through the team's work, members get the opportunity to build a variety of skills, including accounting, marketing, and professional communication. This subteam would be a good fit for those interested in collaborative work with networking opportunities in international business and/or NGO operations.

5. EIA currently has positions available on the bridge, WASH, business, and cultural subteams. Please select which subteam you are interested in. If you are interested in more than one subteam, please list TWO of the subteams in order of preference (ex. 1 for engineering and 2 for cultural, etc.):

___ Bridge
___ WASH
___ Business
___ Cultural

6. Would you like to be considered for other subteams not selected above?

___ Yes
___ No

For questions 6 to 9, please answer the subteam question(s) based on the subteam you chose above (ex. If you chose bridge and business, answer BOTH the bridge and business subteam questions. You would not have to answer the WASH or cultural subteam questions).

7. <u>Bridge Subteam Question:</u> Which aspects of bridge engineering are you interested in and why? (ex: gaining hands-on experience with bridge design, etc) What impact do you hope to make on this subteam?

8. <u>WASH Subteam Question:</u> Which aspects of WASH engineering are you interested in and why? (ex: gaining hands-on experience with water distribution systems, solar powered projects, etc) What impact do you hope to make on this subteam?

9. <u>Business Subteam Question:</u> What is one thing you would like to learn/contribute while on the business subteam, and how does this align with your personal, career or academic goals? (Please elaborate on any technical skills if you can, such as business-related software/application/web design/general experiences, etc.)

10. <u>Cultural Subteam Question:</u> What do you think are some of the most important interpersonal skills to have in service-learning projects? What are some ideas you have about how to teach these skills as well as information about the language and culture of a community to others?

11. Team members are expected to sign up for 3 project team credits for EIA. This corresponds to 9-11 hours a week, including meetings. The first semester a team member is taking EIA for credit, only one credit will be taken, towards a project teams wide asynchronous onboarding course. Note that freshmen do not sign up for credit their first semester. However, we encourage all new members to participate in meetings and activities to learn relevant skills in preparation for taking the team for credit, about 2-3 hours a week. Please indicate that you understand this time commitment.

Yes _____
No _____

12. What additional skills do you have (check all that apply)?
Please indicate your skill level and relevant experiences. Note that new members are not expected or required to have any background knowledge or experience.

___ CAD

___ Website design (ex. HTML, PHP, Java Script)

___ Financial modeling software or relevant experience

___ Foreign Language (please list language and proficiency)

___ Microsoft Excel

___ Graphic design (ex. Photoshop, Canva)

___ Other:

PLEASE ATTACH YOUR RESUME!