

# BENG 417-001 Bioengineering World Health

## Spend 3 weeks in GUATEMALA

Please e-mail Claudia Borke ([cborke@gmu.edu](mailto:cborke@gmu.edu)) if you are interested in taking this Fall 2019 course or have any questions. We will put you on the interest list.

This 3-credit course is a combination of lecture in the fall and a 3 week trip abroad during winter break and counts as a technical elective. The objective of this course is to prepare students for an international experience in a developing nation where they can apply engineering and technical skills to install and repair medical equipment in resource-limited hospitals and clinics. Topics covered include an overview of major hospital equipment, AC voltage – power-current relationships, power supplies and fuses, wiring repair, and temperature alarm function and repair. With a chaperone from Engineering World Health, students will complete requirements for the course by participating in a global experience for three weeks. Around December 26<sup>th</sup>, 2019, students will depart for Guatemala City, be paired and live with a local host family, and be deployed to local hospitals and clinics. In these settings, they will use problem solving and analytical skills to repair medical equipment, train and work with local staff, and perform other engineering duties. During the first week, students will take language classes in the afternoon. The work conducted through this program is both life saving for the patients and communities served, and life-changing for the students at the heart of the program.

### Requirements:

- Must be able to travel to Guatemala City from approximately December 26<sup>th</sup> – January 18<sup>th</sup>
- The estimated cost to students: Due to a generous scholarship from the Dean's office we may be able to bring the costs down from \$3500 (not including airfare) to \$2500 (not including airfare). The air is usually around \$800 and is booked with a Mason travel agent through the Bioengineering office.
- Should at least be in BENG 220/230 in Fall 2019.
- GPA requirement 3.0 preferred