Mines-Purdue Study Abroad in Eldoret, Kenya (May 10 – June 9, 2019)

Interested in partnering with communities to co-create sustainable engineering solutions and local entrepreneurship opportunities? Want to learn more about effective teaching and learning in diverse contexts? Want to study abroad in Africa? Then sign up for this course!

Course description:

“Design and Application of Engineering Education Research Tools and Community-Based Engineering Work” is a 6-unit, four week course that has been run through Purdue University for two years. In 2019, Mines has been invited to partner with Purdue for this study abroad trip. An equivalent course will be offered as EDNS 401, “Projects for People.”

The course has five learning objectives:

i) Design and measure learning activities in engineering/STEM education outreach, ii) Design research instruments used in engineering/STEM education studies, iii) Create and test market research instruments to scope local community-based engineering problems, iv) Design and implement entrepreneurial strategies as a community-based engineering consultant, and v) Intercultural competence.

The course achieves these objectives in partnership with the Tumaini Innovation Center, a residential school founded in Eldoret, Kenya to support the development and education of homeless youth (“street boys”). The study abroad students spend almost every day of the class at Tumaini, forming relationships with the students and teachers in parallel to (and in support of) pursuing these objectives.

There are three main deliverables to the course:

1) Preparation and delivery of two engineering class sessions at Tumaini, including a lesson plan, assessment/evaluation document, and reflective essay.
2) Educational research study which includes a literature review, proposed research methods, data collection, analysis and communication through a publication-ready paper.
3) Market research report, in which the students collect, analyze, and present data about the market potential of home solar electric systems for the community around Tumaini. These findings are presented to the advisory board, students, and teachers of Tumaini at the end of the course.
Trip Details

Course credit: Credit is available for EDNS 401 (Projects for People, 3 credits), HASS 300-level elective, and/or free elective credits. This experience could also be used to meet the McBride practicum requirement and/or requirements for the Grand Challenges Scholars Program.

Cost: ~$5000, plus airfare to/from Eldoret, Kenya

All expenses are included in these costs:

- Up to 6 credits of Purdue University credit available for transfer
- Ground transportation in Kenya
- Room and board in the Indiana University House in Eldoret
- Weekend excursions (including a safari)
- Kenyan visa
- Travel insurance
- Course expenses

Logistics: Students will stay in the Indiana University House (IU House), which partners with Purdue to provide safe and high-quality accommodations for foreign visitors to Eldoret. IU House has high-speed Internet and laundry facilities available. In addition, meals will be provided there Sunday dinner – Friday lunch every week.

For more information, please contact Dr. Stephanie Claussen (sclausse@mines.edu).

Payment schedule:

February 28: $500 deposit due to Purdue University

March 31: Target date for booking flights

Remainder of the fees are due to Purdue through normal tuition process