**ENGR 1925 Sustainability of Island Nations - Jamaica**

**COURSE DESCRIPTION**

Studying abroad in island nations provides a great learning opportunity to examine the complexity of sustainability because the scale of processes are more easily traced and the network of connections more readily tracked. In this course, students will explore the challenges/opportunities for sustainability in Jamaica with a broad consideration of industry, socio-economics, environmental impacts, history, contemporary culture and demographics. Through hands-on projects, immersions with local organizations, academic tours in country and, a collaborative research project with the University of West Indies, the students learn to frame contemporary engineering sustainability issues for island nations in societal and global contexts and, demonstrate a mastery of these through written and oral communication.

The course is presented in preparation for the extended trip to Jamaica, ensuring that students have the requisite preparation to identify and discuss engineering, development and sustainability issues during site-visits in Jamaica. Each session, guest speakers will address topics intended to provide the necessary background for the trip. The presentations will serve as the basis for comparative discussion and analysis.

**INSTRUCTOR**

Dr. David V.P. Sanchez

Assistant Professor

Civil and Environmental Engineering

Assistant Director, Mascaro Center for Sustainable Innovation
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**ALL THINGS TRAVEL AND INTERNATIONAL**

Dr. Kristine Lalley

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Dr. Diane Hardy Saran

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**MEETINGS**

Place and date, Saturdays 9:30am at Benedum G24, Skype, or Adobe Connect (see Syllabus)

***Note detailed syllabus for dates where there are no class meetings***

**Conference Access:** ***With prior permission***, students may participate in individual class by conference call.

**REQUIRED READING**TBD

**PROGRAM OUTLINE AND EVALUATION**

The program and evaluation of student performance is based on three components: I) Pre-departure (25%), II) Study abroad trip (40%) and III) Post-trip (35%). These components are described below:

1. **PRE-DEPARTURE (25%)**

There are six components for grading and four pre-departure sessions of the course (attendance at each of the four sessions is required, including your active participation). The six components are:

1. **Self-Introduction/Meetup (5%):** Prepare a single PowerPoint slide that provides a snapshot of who you are. Be creative and have fun with it. We will share it in class. At minimum it should include your name, institution/department, field of study. On the slide should also include answers to the following three questions:
	1. “When I think of Jamaica I think of?”
	2. “When I think of Sustainability I think of?”
	3. “When I think of engineering I think of?”

There will also be a group meet up before the end of the Spring semester, attendance is strongly encouraged. **Due: 03/31**

1. **Project Work session with UWI Stakeholders (10%).** Students will be required to work (in Pitt teams) collaboratively with stakeholders in Jamaica on a specific Sustainability challenge. The list of projects and stakeholders will be shared at the 1st pre-departure session. Specific outcomes for the student teams will be identified along with the project scope. Students will also be evaluated based on attendance, participation, professionalism during the workshop with UWI students. The goal of the workshop is to explore and identify a sustainability issue that will be further explored in Jamaica **Due: 03/31**
2. **Book Report (10%). Due: 04/30**

Each student will individually prepare a book report on *TBD*. Each report will select one or two appropriate hypotheses about Sustainability put forth by the author and discuss how these are defended (or negated) in the book. The report will likely also include a brief summary of the book in order to introduce the focused topic of the report. The submission should not exceed approximately 3000 words.

1. **TWO WEEKS STUDY ABROAD EXPERIENCE (40%) May 1 to May 15, 2018.**

There are two components evaluated as part of the Study Abroad Trip:

1. **Individual Journal (20%). Due: 05/18**

During the two-week in-country component of the course, each student is responsible for keeping a daily professional journal of their reflections on various professional issues and concerns that are encountered during the trip. They can do this via their blog. We expect the average daily entry to be at least 250 words in length. We expect that each entry will discuss the daily experiences, and describe what each student did and saw; however, this is also a professional journal. This means that each entry must include not only descriptive comments about what you saw or did, but it should make connections between the daily experiences and how they help in your development as an engineer and everything should be linked to sustainability. Your journal should be updated daily (if web access is available). Bring digital or standard cameras to document your trip and include photos with your journal if possible. At the end of each day go back and reflect on what you wrote for each day of the trip and continue to update your journal. We have found that the time goes by very fast during the trip, and students do not always have time to completely finish each day’s journal during the trip; thus, you have until May 18 to reflect on each day and edit/modify/complete your journal.

1. **Participation (20%).**

**Professional activities:** Each student is expected to attend each and every planned event, including the sightseeing trips, the organization visits and the lectures at the local universities; be on or ahead of schedule for all events; participate in all work activities; and be actively engaged in asking questions of lecturers and speakers. The professors will maintain participation records. Student groups are encouraged to share their thoughts with others groups and with each other.

Participation and professionalism is measured by the level of engagement (i.e. classroom discussions, class work, readings, labs, attendance, communication) and the manner in which students conduct themselves. Specifically, are your actions contributing the overall well-being and learning experience of the class? Here are some examples of how students succeed and fail in this regard.  Grades for participation and professionalism are at the discretion of the instructor and TA’s.

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| **Actions aligned with Expected P&P** | **Actions not-aligned with Expected P&P** |
| Attendance, paying attention and taking notes in lectures.   Being prepared for class by reading and critically evaluating course material; being ready to discuss with insights and or questions. Actively participating in the in-class activities Communicating with instructors to request prior approval for a missed class. Providing documentation to explain missed classes immediately upon returning to class. Communicating immediately with your professors and TAs about the course material that you don’t understand Ensuring that your work follows the academic integrity standards for the University. Handling all course-related interactions in a dignified and professional manner including all written communication. | Not paying attention in class and or being a distraction to the class. Not completing the readings and being ready to critically discuss the course material. Not participating in the in-class activities Not communicating with instructors about absencesNot following the phone/computer policy(phones/computers)Academic integrity violations  |

**Personal activities:** We understand that each student is an adult and as such has the right to spend his or her free time in the country as he or she wishes. However, all students must also understand that while they are on the site visits and also while they are on their own time, they are representing the University of Pittsburgh. Thus, their actions directly reflect on the university’s image and the image of the United States. Failure to maintain acceptable behavior will result in a lower grade or failure of the participation component and can be grounds for a lower final grade or failing the course and being sent home. Acceptable and unacceptable actions will be described in the pre-departure sessions.

1. **POST-TRIP Project Summary Paper & Presentation (35%). Due: 05/22**

Student teams will prepare a minimum of 5-page project report (with references) based on the pre-departure work and their in-country collaboration with stakeholders in Jamaica (i.e. University of West Indies). Each student team should communicate their findings and analysis for their Sustainability challenge project. Student will present this preliminary onsite (the last day of our stay in Jamaica) and a final presentation 1 week after their return.

**GRADING**

All grades are at your instructor’s discretion. The following scale will be used to determine final letter grades.

A+ 99.0-100% B+ 88.0-90.9% C+ 78.0-80.9%

A 94.0-98.9% B 84.0-87.9% C 74.0-77.9%

 A- 91.0-93.9% B- 81.0-83.9% C- 71.0-73.9%

**LATENESS AND EXTENUATING CIRCUMSTANCES:** *Extenuating circumstances aside, late assignments and projects will not be graded.* Extenuating circumstances, such as a death in the family or serious illness, will be granted on a case-by-case basis. **Unless your health prohibits you from communicating, lateness or approved absences must be granted before due dates to be permitted and ongoing approved exceptions to course expectations will require documentation of your health issue from a medical professional.**

**CONNECTION TO ABET STUDENT OUTCOMES & EVALUATION**

Because of the team based project oriented nature of this class, we will be able to address all seven ABET student outcomes to varying degrees.

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| **ABET Student Outcome** | **Evaluation** |
| 1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
 | International Team Project |
| 1. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
 | International Team Project |
| 1. An ability to communicate effectively with a range of audiences
 | Correspondence and End of Term Presentation to Jamaican stakeholders and Faculty |
| 1. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
 | Reflection on Academic tours (in country) |
| 1. An ability to functions effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
 | International Team Project |
| 1. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions
 | International Team Project |
| 1. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies
 | Pre-Departure Research |

**STATEMENT ON STUDENT WELLNESS**

As your instructors we care first and foremost about your well-being (physical, mental, emotional, spiritual etc). Secondly we care deeply about your learning. It is from these two priorities that everything else (the design of the class, the project experiences, the travel destinations, pedagogy) derives. We care that you have balance in your life. Maintaining your physical, mental, and emotional health will help you handle stress and practice the balance you need to sustain success at and beyond your time as a student.

We all need support during stressful times in our lives. Use the student experience to practice asking for help when you need it. Please ask us how we can support you.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help or contact *Student Health Services* (STUDHLTH@PITT.EDU, 412-383-1800,  <https://www.studentaffairs.pitt.edu/shs/>).

**PERSONAL IMPACT WITH SUSTAINABILITY ON-CAMPUS**

Students are encouraged to look at their personal impact and examine the various ways to decrease their impact by using the student Green Guide which can be found on the Mascaro Center for Sustainable Innovation site [here](https://www.engineering.pitt.edu/MCSI/Green-Guide/) and by following Pitt Sustainability initiatives [here](https://www.sustainable.pitt.edu/what-pitt-is-doing/campus-initiatives/).

**Academic Integrity**All students are expected to adhere to the standards of academic honesty. Any student engaged in cheating, plagiarism, or other acts of academic dishonesty would be subject to disciplinary action. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity <http://www.provost.pitt.edu/info/ai1.html>. This may include, but is not limited to the confiscation of the examination of any individual suspected of violating the University Policy.

**Disability Services**If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and [Disability Resources and Services](http://www.studentaffairs.pitt.edu/drswelcome) (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

**Statement on Classroom Recording**To address the issue of students recording a lecture or class session, the University’s Senate Educational Policy Committee issued the recommended statement on May 4, 2010. While it is optional, the Committee recommends that faculty consider adding the statement to all course syllabi.

“To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student’s own private use.”

**STUDENT OPINION OF TEACHING SURVEY**
Students in this class will be asked to complete a *Student Opinion of Teaching Survey*. Surveys will be sent via Pitt email and appear on your CourseWeb landing page during the last three weeks of class meeting days. Your responses are anonymous. Please take time to thoughtfully respond, your feedback is important to me. [Read more](http://www.cidde.pitt.edu/omet/student-information/) about *Student Opinion of Teaching Surveys*.

**Summer 2019 Class Schedule (PRE-TRIP)**

**Classes are from 9:30am to 12:00 pm**

**Room: Benedum Hall G24**

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| **Date** | **Syllabus** | **Deliverable** |
| **S 03.02** | **Session 1:***Syllabus Introduction to course and requirements:* Dr. SanchezMustard Seed Registration*Introduction to Sustainable Development – Dr. David Smith (Flip Lecture)Institute for Sustainable Development (UWI)* *-*Connect with UWI Hosts | Self-introductions |
| **S 03.23** | **Session 2: 9:30am – 12pm***Working Session with Student Teams from UWI* |  |
| **F 4.05** | **Session 3: at 4-6pm***Pre-Departure Trip* |  |

**Summer 2019 Class Schedule (POST-TRIP)**

**Classes are from 5:30 to 8:00 pm**

**Room: Benedum Hall G24**

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| **Date** | **Syllabus** | **Deliverable** |
| **S 05.16** |  | Individual journals are due |
| **W 05.22** | **Final Presentations and Reports** |  |