Course Meetings: Successful completion of the course will result in three credit hours awarded in the Summer 2015 term.

Pre-departure meetings are scheduled in the Spring 2015 semester to prepare for on-ground studies in Aruba. Two pre-departure meetings will be scheduled, between April and May. The meetings will be used to address questions and discuss topics such as Aruba economy and policy, local life and culture, sustainability topics, engineering analysis, systems thinking, and health and safety. These meetings will be scheduled on a Sunday or weekday evening for 90-120 minutes, and will allow students, faculty, and staff an opportunity to chat socially before the two-week travel to Aruba.

On-ground travel in Aruba is expected to occur between May 23 and June 9, 2015. Travel will begin after completion of Spring 2015 finals, in late May, to afford students maximum time for other summer obligations—internships, coursework, research, etc.

Instructor: Nathan Johnson (FSE)
Office: The Polytechnic Campus – Peralta Hall Suite 330J (M,T,TH,F)
Office: The Tempe Campus – Wrigley Hall Room 322 (W)
Contact Info: NathanJohnson@asu.edu, 480-727-5271
Office Hours: TBD

Teaching Assistant: Malena Ageymang
Office: The Tempe Campus – College Avenue Commons Room 527
Contact Info: magyeman@asu.edu
Office Hours: TBD

Course Description: This program uses Aruba as a case study and examines sustainability concepts in an island setting. The common thread will be that Islands make excellent case studies for sustainability issues because of their small scale and isolation. Islands experience much stronger feedback signals (positive and negative) which can hold important lessons for larger scale systems. In addition, islands require a special approach because of their small economies of scale and social-cultural setting. Students will gain experience in developing contextualized sustainable solutions in a multi-cultural and interdisciplinary team setting.

Student projects will cover a topic that is defined in consultation between the student, instructors, and on-ground collaborators in Aruba. Some example project themes include renewable energy, water treatment, local economies and business development, connectivity and communication, eco-tourism, urbanization, transportation, and agriculture. Students will prepare a final report and present their findings during a one-day conference in Aruba at the conclusion of the program. The conference will be tied in with the Government of Aruba’s “Social Dialogue” initiative, a forum in which government, unions and businesses exchange ideas on technology and policy and the future development of Aruba.

Course Goals: The main goal of the course is to provide students with knowledge and experience in developing sustainable solutions in an island setting. The small and relatively isolated nature of islands makes them ideal for focused projects that can be taken from start to completion in a two-week period. Student output is intended to inform local engineering, policy, and business decisions related to critical island sustainability topics such as energy, water, eco-tourism, food, and economic development.
Learning Outcomes: By the end of this course, each student should be able to:
1. Describe sustainability in the context of island nation states.
2. Identify critical issues in sustainability of island economies and life.
3. Develop a well-defined scope of a complex sustainability issue comprised of engineered, social, and environmental systems.
4. Apply systems thinking to describe the components, agents, relationships, and forces that affect a complex sustainability issue.
5. Demonstrate capability to work effectively in interdisciplinary and multicultural teams.
6. Evaluate technical, social, economic, and political options to resolve a contemporary issue for Aruba and other island nation states.
7. Articulate and defend their approach to sustainability using critical thinking, writing, and presentations.

Pre-requisites/Co-requisites/Anti-requisites: Undergraduate (sophomores, juniors and seniors) and graduate students in good standing in their respective programs will be eligible. Students should have taken at least 12 hrs of UG or Graduate coursework in engineering or sustainability.


Course Format: Two pre-departure meetings will consist of seminars and invited speakers that introduce a range of topics related to island economies, culture, sustainability, engineering, and the role of technology in sustainable development.

On-ground travel will consist of a) daily reflections each morning with open-ended questions for group comment and discussion, b) a daily 90-minute seminar, c) small group meetings with instructors focused on course projects, d) half-day working sessions to schedule site visits, meetings with island people, and project work time.

Coursework: Final grades for the course will be assigned on the following:
- Participation 40% Participation in lecture and site visits, arrival on time, respectful
- Project description 10% Brief report describing the scope of your project
- Mid-term presentation 10% Mid-term presentation on your project
- Final presentation 20% Final professional presentation on your project
- Final project report 10% Final report on your project
- Journals 10% Short daily journals on experiences and questions while in Aruba

Graduate students will be required to complete more detailed research in their project and author a conference-style paper for the final report.

Schedule of Readings and Assignments:

The two pre-departure meetings):
Day 1 – Aruba economy, policy, local life and culture
Day 2 – Health and safety

On-ground travel: The first half of the on-ground course will include seminars and small-group meetings in the mornings that are tailored to the students’ project areas (e.g., energy, water, eco-tourism). Afternoons will include site visits to critical areas of Aruba’s economy of life—e.g., power utility, water treatment, farming community, parliament, and hospitality services. The second half of the course will include further seminars and site visits that are personalized to the interests of small groups of students defined over during the first week in Aruba.

A final report on the project will be due one-week after conclusion of the trip.

The below table provide a list of the daily activities while in Aruba:
<table>
<thead>
<tr>
<th>Day</th>
<th>Topics (Morning)</th>
<th>Topics (Afternoon)</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introductions; Sustainability and island nation states</td>
<td>Field trip – Aruba life and culture</td>
<td>Reading: Chapter 1, 2, 3</td>
</tr>
<tr>
<td>2</td>
<td>Critical Infrastructures A – Power and Water</td>
<td>Field visit to utility and water treatment facilities</td>
<td>Reading: Chapter 4, 5, 6</td>
</tr>
<tr>
<td>3</td>
<td>Critical Infrastructures B – Roads and Communication</td>
<td>Field visit to transportation authority and communications authority</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>Food and Agriculture</td>
<td>Field visit to a farm, a fishery, and a food processing plant</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Eco-tourism and hospitality</td>
<td>Field visit to a hotel, a cruise agency, and a tourism bureau</td>
<td>Project description</td>
</tr>
<tr>
<td>6</td>
<td>Independent project work session</td>
<td>Mid-term presentation</td>
<td>Mid-term presentation</td>
</tr>
<tr>
<td>7</td>
<td>Sustainability topics, revisited</td>
<td>Field visits TBD based on student needs</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>Sustainability topics, revisited</td>
<td>Field visits TBD based on student needs</td>
<td>None</td>
</tr>
<tr>
<td>9</td>
<td>Interactive project workshop with instructors and local collaborators</td>
<td>Field visits TBD based on student needs</td>
<td>None</td>
</tr>
<tr>
<td>10</td>
<td>Independent project work session</td>
<td>Final presentation</td>
<td>Final presentation; Final report</td>
</tr>
</tbody>
</table>

**Final Grades:** Final grades will be assigned using percentages below out of a maximum of 100%:

- **A** Excellent: A- (90.0 - 92.9), A (93.0 - 96.9), A+ (97.0 - 100.0)
- **B** Good: B- (80.0 - 82.9), B (83.0 - 86.9), B+ (87.0 - 89.9)
- **C** Average: C (70.0 - 76.9), C+ (77.0 - 79.9)
- **D** Passing: D (60.0 - 69.9)
- **E** Failure: E (0.0 - 59.9)

**Extra Credit**
There will be no extra credit opportunities assigned for this course.

**Late Assignments**
Late work will not be accepted unless approved by instructor before the stated due date.

**Course Policies**
Attendance is expected for the duration of the on-ground trip and each scheduled event during pre-departure sessions and the on-ground trip.

Consideration for making up missed work, including quizzes, will be based on conditions outlined by the instructor.

Collaboration and discussion amongst students is highly encouraged. However, you must complete your own work for evaluation.

Difference helps foster creative thought and innovation. Each person brings a unique perspective that makes class dialogue more engaging, and each person’s perspective should be considered without prejudice. You are expected to respect differences in viewpoints, ethnicity and race, any religious affiliation, gender, and age of other students, the instructors, and guests.

**Grade Appeals**
ASU has formal and informal channels to appeal a grade. If you wish to appeal any grading decisions, please see [http://catalog.asu.edu/appeal](http://catalog.asu.edu/appeal).

**Incomplete**
A mark of "I" (incomplete) is given by the instructor when you have completed most of the course and are otherwise doing acceptable work but are unable to complete the course because of illness or other conditions beyond your control. You are required to arrange with the instructor for the completion of the course requirements. The arrangement must be recorded on the Request for Grade of Incomplete form ([http://students.asu.edu/forms/incomplete-grade-request](http://students.asu.edu/forms/incomplete-grade-request)).

**Student Standards**
Students are required to read and act in accordance with university and Arizona Board of Regents policies, including:

The ABOR Code of Conduct: Arizona Board of Regents Policies 5-301 through 5-308: [https://students.asu.edu/srr](https://students.asu.edu/srr)

**Academic Integrity**
Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see [http://provost.asu.edu/academicintegrity](http://provost.asu.edu/academicintegrity).

If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, school, and/or dean. Academic dishonesty includes borrowing ideas without proper citation, copying others’ work (including information posted on the internet), and failing to turn in your own work for group projects. Please be aware that if you follow an argument closely, even if it is not directly quoted, you must provide a citation to the publication, including the author, date and page number. If you directly quote a source, you must use quotation marks and provide the same sort of citation for each quoted sentence or phrase. You may work with other students on assignments, however, all writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the TA or the instructor in advance of turning in an assignment. Please be aware that the work of all students submitted electronically can be scanned using SafeAssignment, which compares them against everything posted on the internet, online article/paper databases, newspapers and magazines, and papers submitted by other students (including yourself if submitted for a previous class).

**Note:** Turning in an assignment (all or in part) that you completed for a previous class is considered self-plagiarism and falls under these guidelines. Any infractions of self-plagiarism are subject to the same penalties as copying someone else’s work without proper citations. Students who have taken this class previously and would like to use the work from previous assignments should contact the instructor for permission to do so.

**Prohibition of Commercial Note Taking Services**
In accordance with [ACD 304-06 Commercial Note Taking Services](http://students.asu.edu/policies/academics/304-06-commercial-note-taking-services), written permission must be secured from the official instructor of the class in order to sell the instructor’s oral communication in the form of notes. Notes must have the notetaker’s name as well as the instructor’s name, the course number, and the date.

**Student Support and Disability Accommodations**
In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations
are responsible for requesting accommodations and providing qualifying documentation to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities. Qualified students who wish to request an accommodation for a disability should contact their campus DRC at: http://www.asu.edu/studentaffairs/ed/drc/

If you are a student in need of special arrangements, we will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services. Typically, once a student discloses the need for an accommodation through their study abroad application, the Study Abroad Office, the academic unit, the student and DRC will develop a plan on how to best accommodate the student within the parameters available within the onsite locations.

Drop and Add Dates/Withdrawals
Please refer to the academic calendar on the deadlines to drop/withdraw from this course. Consult with your advisor and notify your instructor if you are going to drop/withdraw this course. If you are considering a withdrawal, review the following ASU policies: Withdrawal from Classes, Medical/Compassionate Withdrawal.

Please note that the ASU Academic Calendar only refers to withdrawal for the academic portion of your study abroad program. Please refer to the Study Abroad Withdrawal Policies for important dates regarding withdrawing from your Faculty Directed program.

Email Communications
All email communication for this class will be done through your ASU email account. You should be in the habit of checking your ASU email regularly as you will not only receive important information about your class(es), but other important university updates and information. You are solely responsible for reading and responding if necessary to any information communicated via email. For help with your email go to: http://help.asu.edu/sims/selfhelp/SelfHelpHome.seam?dept_pk=822 and file a help desk ticket by clicking on “My Help Center.”

Campus Resources
As an ASU student you have access to many resources on campus. This includes tutoring, academic success coaching, counseling services, financial aid, disability resources, career and internship help and many opportunities to get involved in student clubs and organizations.

- Tutoring: http://studentsuccess.asu.edu/frontpage
- Counseling Services: http://students.asu.edu/counseling
- Financial Aid: http://students.asu.edu/financialaid
- Disability Resource Center: http://www.asu.edu/studentaffairs/ed/drc/
- Major/Career Exploration: http://uc.asu.edu/majorexploration/assessment
- Career Services: http://students.asu.edu/career
- Student Organizations: http://www.asu.edu/studentaffairs/mu/clubs/

Harassment Prohibited:
ASU policy prohibits harassment on the basis of race, sex, gender identity, age, religion, national origin, disability, sexual orientation, Vietnam era veteran status, and other protected veteran status. Violations of this policy may result in disciplinary action, including termination of employees or expulsion of students. Contact Student Life (UCB 221) if you feel another student is harassing you based on any of the factors above; contact EO/AA (480-965-5057) if you feel an ASU employee is harassing you based on any of the factors above.

Establishing a Safe Environment:
Learning takes place best when a safe environment is established in the classroom. Students enrolled in this course have a responsibility to support an environment that nurtures individual and group differences and encourages engaged, honest discussions. The success of the course rests on your ability to create a safe environment where everyone feels comfortable to share and explore ideas. We must also be willing to take risks and ask critical questions. Doing so will effectively contribute to our own and others intellectual and personal growth and development. We welcome disagreements in the spirit of critical academic exchange, but please remember to be respectful of others’ view points, whether you agree with them or not.
Syllabus Disclaimer:
The course syllabus is an educational contract between the instructor and students. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes via email, or in the Announcements section on Blackboard.

Student Conduct Statement:
Students are required to adhere to the behavior standards listed below:

- ACD 125: Computer, Internet, and Electronic Communications [http://www.asu.edu/aad/manuals/acd/acd125.htm](http://www.asu.edu/aad/manuals/acd/acd125.htm), and

Students are entitled to receive instruction free from interference by other members of the class. If a student is disruptive, an instructor may ask the student to stop the disruptive behavior and warn the student that such disruptive behavior can result in withdrawal from the course. An instructor may withdraw a student from a course when the student’s behavior disrupts the educational process under USI 201-10 ([http://www.asu.edu/aad/manuals/usi/us i201-10.html](http://www.asu.edu/aad/manuals/usi/us i201-10.html)).

Course discussion messages should remain focused on the assigned discussion topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion.

Inappropriate discussion board messages may be deleted if an instructor feels it is necessary. Students will be notified privately that their posting was inappropriate. Student access to the course Send Email feature may be limited or removed if an instructor feels that students are sending inappropriate electronic messages to other students in the course.

Religious Accommodations for Students:
Students who need to be absent from class due to the observance of a religious holiday or participate in required religious functions must notify the faculty member in writing as far in advance of the holiday/obligation as possible. Students will need to identify the specific holiday or obligatory function to the faculty member. Students will not be penalized for missing class due to religious obligations/holiday observance. The student should contact the class instructor to make arrangements for making up tests/assignments within a reasonable time.