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Spring 2017

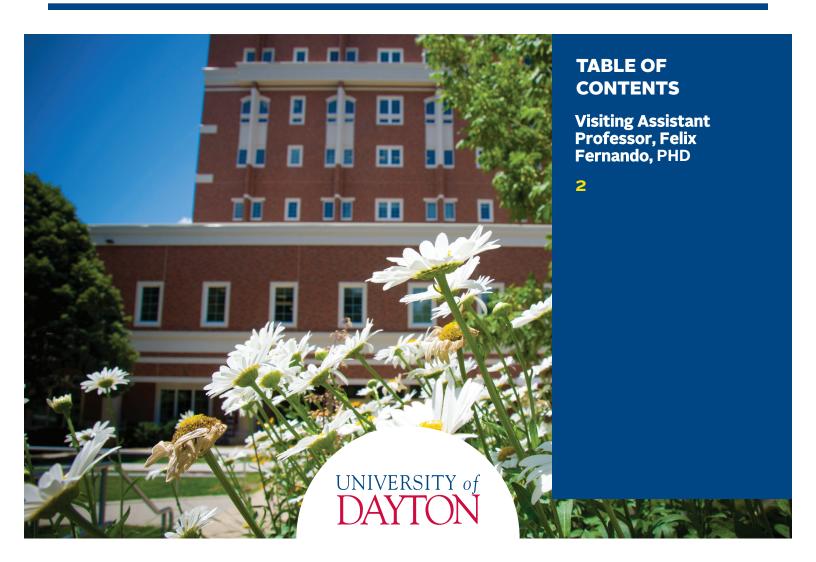
2017 Visiting Assistant Professor Report

University of Dayton, Hanley Sustainability Institute

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VISITING ASSISTANT PROFESSOR REPORT 2017



Report of Activities: From Summer 2016 to Spring 2017

Felix Fernando, Post-doc/Visiting Assistant Professor

Teaching

A. Fall 2016

- a. SEE 250: Introduction to Sustainability Energy and the Environment (Co-taught with Karen Abney Korn)
 - i. The student projects of the class explored case studies on different energy sources such as shale oil, biomass, wind, and solar. The case studies were written and prepared by me.
- b. ASI 322: Cities and Suburbs
 - i. This course was reactivated with a new syllabus and course materials developed by me.
 - ii. I worked with community stakeholders to organize guest lectures for the class. Dayton Historical Society, Dayton Economic Development, Five Rivers Metroparks, and The Collaboratory delivered guest lectures.
 - iii. I also organized a bus tour with UpDayton to take the students around the city.
 - iv. The student projects of the course involved working with community partners to address issues pertinent to the Dayton Food System. Under my guidance, students worked with community partners to complete projects on
 - 1. Recycling in downtown Dayton
 - 2. The Urban Renewal Farm
 - 3. Midnight Market Project
 - 4. The Garden Station
 - 5. Backyard chickens
 - v. The project findings were presented to the community members to be used in their planning efforts. The backyard chickens student group presented their findings at the Miami Valley Regional Planning Commission meetings.

B. Spring 2017

- a. SEE 250: Introduction to Sustainability Energy and the Environment (Co-taught with Rebecca Potter)
 - i. The student projects of the class explored adaptive strategies to climate change on issues such as sea level rise, ocean acidification, desertification, fresh water, global warming, and food production. The assignments were written and prepared by me.
 - ii. The course also featured four movie screenings that was open to other students and staff. I organized the movie screenings and the short discussion sessions after the screening.

- iii. I also worked with one honors student. Her project examined corporate social responsibility in the oil industry using the GRI guidelines.
- C. I also assisted Dr. Rebecca Potter in Sustainability Studies program development as and when tasks were assigned to me.

Publications

- A. **Fernando, F.N.** 2016. "Media Content Analysis as a Methodological Primer for Quality of Life (QoL) Studies: Case of Western North Dakota." *Northern Plains Ethics Journal*, vol. 4(1): 23-49
- B. **Fernando, F.N**. and Hearne, R. 2016. "Housing for Essential Service Workers During an Oil Boom: Opportunities and Policy implications." *Journal of Housing and the Built Environment*. Online first publication, doi:10.1007/s10901-016-9539-9.
- C. Hearne, R. and **Fernando, F.N**. 2016. "Strategies for Community and Industry Water Management in the Oil Producing Region of North Dakota." *Water*, vol. 8(8): 331-343.
- D. **Fernando, F.N**. and Cooley, D.R. 2016. "Attitudes Toward Shale Oil Development in Western North Dakota: The Role of Place Based Community Values in Attitude Formation." *Journal of Rural Studies*, vol. 46: 132–146.

Conference Proceedings and Presentations

- A. Urban Renewal through Farming: From an Abandoned Factory to an Urban Farm: Midwest Sociological Society Annual Meeting and Couch-Stone Symposium, Milwaukee, Wisconsin, March 29-April 2, 2017
- B. Mini-Boom/Mini-Bust Model of Modern Shale Oil Development: Challenges and Policy Implications: ISSRM, Houghton, Michigan, June 22-26, 2016.

Community Engagement

- A. Dayton Regional Green (DRG): As the co-chair of the economic pillar I attended the board meetings regularly. My other activities with DRG included:
 - a. Helping to create a session on HSI at the 2016 Green Expo
 - b. Identifying opportunities to broaden collaborations between DRG and HSI, to create community based experiential learning opportunities for students.
 - c. Meeting frequently with members of DRG/PFE action teams to explore ways to nurture sustainability initiatives in the greater Dayton area.
- B. Based on my community engagement activities with the DRG, I identified the lack of a broader collaborative mechanism among the different pertinent stakeholders as the main barrier hindering the promulgation of sustainability efforts in the greater Dayton area. As a result, I drafted a proposal to create the Greater Dayton Sustainability Coalition (GDSC), which could function as the unifying collaborative mechanism. The

- underlying ideas of the proposal have been well received by the community members that I have engaged in discussions with. My continual efforts aim to work towards building a broader coalition.
- C. DRG-HSI Internship Program: In order to support and nurture the action teams while creating opportunities for community engaged experiential learning opportunities for UD students, I worked to draft and create the DRG-HSI Internship Program. The program encouraged UD students to apply for internship opportunities through Dayton Regional Green Action Teams for community projects. Teams aimed to provide students with valuable learning experiences while receiving assistance from student interns in their programming. Each intern would work with an action team on a specific project with action items, goals, and pre-determined deliverables. Seven action teams submitted proposals for an intern. Four action team proposals were approved for the pilot phase of the project during the summer of 2016, which are:
 - a. The Connecting to Nature Intern
 - b. Ohio EPA Clean Diesel Projects Intern
 - c. Sustainability Mentor Program Intern (Subsequently received county funding and was removed from the program).
 - d. Intern Researcher for Urban Agriculture Zoning (Constantly ran into communication delays with the action team members and also received low interest from the students).

With the pilot phase ending on August 15th, I am currently working on program review and evaluation with the internship supervisors with the aim of identifying opportunities for program continuation.

- D. In order to establish networks and partnerships that would nurture research and grant funding opportunities I worked with two local farming groups: The Urban Renewal Farm (TURF) and Dayton Urban Grown (DUG). I volunteered with these two groups helping them with planning work and identifying funding opportunities.
- E. World Food Day: I organized a movie screening and a panel discussion to celebrate the World Food Day in October 2016. The screening featured short films from the Faces of Hunger Short Film Festival held in New York every year to commemorate World Food Day. The panel featured community stakeholders and local experts on food related issues.
- F. Meetings at Collaboratory: I participated in discussions at the Dayton Collaboratory to explore ways to enhance collaborations between UD and the Dayton community. Although no actionable outcomes resulted from these discussions, they were a good way to get to know the community members.
- G. Lincoln Hill Garden (LHG): I created a document that outlined and identified educational and research opportunities from the LHG project.
- H. On Campus Events

- a. Farmers Market: I worked with students from the sustainability club to organize and host the first farmers market on UD campus, as a part of the sustainability week events. The market was well attended by local farmers and producers. Students got an opportunity to learn more about local farming efforts using the worksheets that were prepared to increase student participation.
- b. Standing Rock Event: I worked with River Stewards to organize an event to support the Standing Rock protests against the Dakota Access Pipeline Project. I also gave a talk at the event on the risks associated with pipelines.

Student Projects

Although I did not have any students that I mentored or advised, I worked closely and guided two student projects.

- A. Assessing the Importance of Sustainability at the University of Dayton (a quantitative survey) by Charlotte Shade. I guided the student through survey instrument preparation, data collection, and report preparation. The survey received close to 1,000 responses and the project is in report preparation phase.
- B. Climate Change in Dayton, Ohio: Identifying the Impacts and the Community's Understanding by Emily Skill. I advised the student in framing the study methodology and instrument preparation with Dr. Bob Brecha.
 - a. The study poster was presented by Emily Skill at Stander Symposium, Dayton, Ohio, April 5, 2017.

Grant Proposals

- A. I worked on a NSF grant proposal with Steven Wendel from Sinclair Community College that aimed to establish a research program on unconventional agriculture mechanisms (Aquaponics and Hydroponics). The proposal was completed. However, the proposal was not submitted for the last grant cycle because of budget issues. The plan is to work on submitting the proposal in the next grant cycle.
- B. I worked with Kellie Schneider from Engineering and Diana Cuy Castellanos from Health and Sports Sciences on a small Marianist Foundation Grant to secure funding to obtain research materials for a project with the Kettering Alternative School and Dayton Foodbank Inc. The grant proposal was funded.
- C. I worked collaboratively with many other community partners to draft and submit a USDA Farmers Market Promotion Program Grant. The proposal was submitted with the decision currently pending.
- D. I worked with Misty Thomas from Graphic Design and Luci Beachdell from Five Rivers Metroparks to create a research program to enhance volunteer participation and retention in community gardening. The proposal was intended to be submitted to the Robert Wood Johnson Foundation. However, the program was not considered a good fit and we are looking for a better-suited grant program.

Research Collaborations

A. Ohio State University (OSU) Shale Group: In order to expand my collaborations with colleagues working on similar research issues, I joined the OSU Shale Group. I also collaborated with faculty from South Dakota State University and USGS. The efforts resulted in a book chapter proposal, which has been accepted and a manuscript currently under review.