

AEBI 423

Sustainable Land Use

Sustainable Land Use (AEBI 423) is an interactive, in-depth examination of sustainable agricultural land use on the island nation of Barbados. Many countries worldwide are currently facing issues of shrinking undeveloped land, and decisions must be made concerning the future uses of remaining sites, and the fate of sites currently in use. Understanding how the dynamics of limited space can affect the processes and priorities of an economy and an entire nation, is an indispensable skill for professionals and individuals.

During this intensive course, students spend 3 days a week in class, over a 4-week interval, at the Bellairs Research Institute of McGill University, in Barbados. Included in this course are numerous trips to relevant locations on the island, and lectures from McGill professors and local experts. In 2015, the course will be co-taught by two McGill professors (Drs. A. Mustafa and P. Seguin, specialists in animal science and the management of crop plants, respectively).

This course focuses on 8 important topics encompassing the broad spectrum of land use potential in agriculture:

- Trade policy impact on land use and food security.
- Agriculture today.
- Alternative agricultural systems.
- The basics of agricultural production in the humid tropics.
- Livestock in tropical agriculture.
- The status of animal production in the tropics.
- Livestock production and sustainability.
- Animal productivity in the tropics.



Fieldtrip to a polo field; learning about the different uses of land in Barbados

Informative lectures in this class are paired with daily outings to local agricultural enterprises or research facilities. These consultations with local professionals enable the students to better understand local issues. In the study of land use there are often no clear right or wrong solutions. Decisions are made by individuals who have experience in the field, and the best way to learn about the context of sustainable land use in an island habitat is to interact with these local experts.



John Vaughan teaching students about goat milking in the tropics during a trip to the Greenland livestock research station.



The BITS 2014 class pictured here during a trip to a local farm.

Class visits include the Waller Dairy Farm, the island's Sugarcane Breeding Facility, Barnwell Farms pig production, Kendal Plantation's black belly sheep breeding facility, Chickmont Foods poultry unit, and many more relevant sites on the island. In recent years, the BITS class was also treated to a consultation one of the foremost sugarcane breeders in the world and a talk with Barbados' own Minister for Agriculture.

Studying in a different climate and country also allows students to tackle problems outside their traditional fields of knowledge. Tropical climates present their own spectrum of agricultural issues while cultural influences impact the choices made and the costs and benefits of different forms of

agriculture. For students, learning how to deal with problems outside their expectations, as well as working hand-in-hand with individuals whose needs are very different from their own is a valuable, marketable skill which cannot be acquired while studying at home.

Sustainable Land Use provides students with experiences which they cannot find anywhere else at McGill. Land use determines the future of a nation, and the choices we make as a society concerning our available land will have long-term implications for our prosperity. Worldwide, prime agricultural land is continuously declining in area. It is being lost due to rezoning for urban, industrial, touristic, and other purposes... forever lost under asphalt and concrete. Barbados provides students with a model view of the factors a society must consider when land is at a premium. Sustainable Land Use is an experience not to be missed.