

Systems Rethinking – Real World Problems in Agriculture, Food and Well-being

AGRI5710 Graduate Module

Facilitated by Dr. Alan Fredeen, Dr. Alex Martynenko, and Dr. Derek Lynch, Dr. Kathleen Kevany,

Modular 1 Outline

Module 1 – Confluences of Agriculture, Food, and Well-being: Systems Thinking and Theory

Module 2 – Case studies and sample reports: Real world problems

Module 3 – Student case presentations and reports and solutions: Real world solutions

Module 1 Description

This, first of a three-part modular series, challenges the way we examine and think about intersecting issues in agriculture, food, and wellbeing (AFW). Module 1 includes deep deliberation on key concepts of well-being and systems thinking. This module includes students learning about systems thinking and about tools to inform analyses of complex issues related to AFW. A student completing all three modules would apply the theory and skills learned in Module 1 to the real-world problems identified in Module 2 and in their articulating of practical solutions and recommendations in Module 3.

Literature Examination

Students will examine in the literature, many intersecting forces affecting AFW like climate change, limitations of natural and human resources, industry challenges, food and nutrition, along with impact on rural life. Interest in well-being has grown in recent years and is the subject of investigations by researchers in disciplines such as recreation, sociology, health, environmental studies, and geography. The pressing issues facing agricultural industries, human well-being, environmental sustainability, and community prosperity are complex. Solutions are needed that are interrelated and that arise from interdisciplinary discourse. “Since a simple response is not likely the best option, students must investigate the problem, seek relevant information, consider alternative actions, and evaluate short and long-term consequences” (Keefer et al. 250-1).

Requirements and Evaluation

This module is team taught across disciplines and involves technologically mediated learning. For this first module students work largely independently to formulate a strong understanding of systems thinking and a solid articulation of the factors that mediate well-being through agriculture and food. Students will be encouraged to share their view of systems influencing well-being and the issues they are examining through online blogs and other virtual methods. Students will be required to undertake a review of relevant writing (scientific literature, government and industry reports, etc.) about the topic of concern, the analytic tools and applications to systems analyses. Criteria for assessment include compelling and coherent rationale, critical analyses, and evidence of effective synthesis of disparate voices on the issues.

Grading:

1. Reflection paper on wellbeing – 5%
2. Literature review - 10%
3. Participation (discussion board) – 5%
4. Application of tool to case in the media – 10%

Timing: Spring 2015

Schedule/Flow of Module:

| Week | Topics and Activities | Student Deliverables |
|------|---|---|
| 1 | <p>Introduction and Wellbeing</p> <p>Lecture: Introduction of module, requirements and learning goals</p> <p>Lecture: What is wellbeing and what is included in it? What are the connections between agriculture, food and wellbeing?</p> <p>Relevant Online Resources:</p> <p>Course Syllabus</p> <p>Links to Wellbeing websites</p> <p>Participation Description and Marking Rubric</p> <p>Reflection Paper Assignment Description and Marking Rubric</p> <p>Literature Review Assignment Description and Marking Rubric</p> <p>Lecture slides for all lectures</p> | <p>Write a one-page reflection on the question: What is wellbeing and what is included in it? What are the connections between agriculture, food and wellbeing?</p> <p>Reflection Due: Thursday of Week 3 at 4:00 p.m.</p> |
| 2 | <p>Systems Theory and Systems Thinking</p> <p>Lecture: Overview of intersecting issues in food systems</p> <p>Relevant Online Resources:</p> <p>Links and readings on systems thinking</p> <p>Online participation description and marking rubric</p> <p>Literature Review Assignment Description and Marking Rubric</p> <p>Lecture slides for all lectures</p> | <p>Students are to read online materials and contribute to online discussions.</p> <p>Due: Saturday of Week 2 at 4:00 p.m.</p> |
| 3 | <p>Tools for Analyses</p> <p>Lecture: Life Cycle Assessment Demonstration</p> <p>Lecture: SWOT Demonstration</p> <p>Relevant Online Resources:</p> <p>Analytic Tool Application Requirements and Rubric</p> <p>LCA Template and Explanation for use</p> <p>SWOT Template and Explanation for use</p> <p>PESTE Template and Explanation for use</p> <p>Lecture slides for all lectures</p> | <p>Students are to further investigate and apply their chosen analytic tool to a relevant case from the media.</p> <p>Due: Saturday of Week 4 at 4:00 p.m.</p> |
| 4 | <p>In the BBL – collaborate discussion board all members contribute to discourse around AFW issues and understanding of interdisciplinarity, systems thinking and application to agriculture, food, and wellbeing</p> | <p>Literature review of a relevant topic. This content could also become part of the final report in module 3.</p> <p>Due: Saturday of Week 5 at 4:00 p.m.</p> |