

**PSS 8990 01 SPECIAL TOPICS IN PSS
Climate, People, Plants, and Food
Spring odd Years**

Instructor: Dr. K. Raja Reddy

Office: 100 MSU North Farm, Bldg. 32

Class Room: 101 MSU North Farm (time to be determined)

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Course Description:

This is an advanced-level 1-hour graduate course focusing on principles and impacts of climate change on plants and food. The course will be taught as a discussion of primary literature with occasional supplementation from texts and other literature reviews.

Course Rationale and Objectives:

Climate change, human population, natural resource use and management are intricately connected, and local climate change perturbations will ultimately affect globally and thus local economy. The course, Climate, People, Plants, and Food, is concerned fundamentally with the interrelationships between people, plants, food production and climate. By intensive literature search, the objectives will include (1) key or driving variables that cause climate change and (2) impacts of climate change on animals and humans, plants and food production and ecosystem health.

Methods of instruction:

The initial class will be led by the instructor, and will consist of a general overview of climate change variables, the drivers (Global and regional trends in Population, and natural resource use and greenhouse gas emissions and their impact on natural resource management). The remainder of the semester will be conducted via paper presentations and discussions.

Each student will select a two weeks in which to begin and lead the discussion of two scientific papers. These papers may be related to their area of research, but should be linked or related to climate change. The papers will be selected by intensive literature search, but focusing on recent years. The final selection of the paper will be in consultation with the instructor. The first paper should address some aspects of the science behind the climate change, and the second paper should address the impacts of climate change on plants (natural ecosystems), animals and humans and food production. Also, each student is strongly encouraged to participate in the debate or discussion by asking at least 2-3 meaningful and thought provoking questions on the paper on each topic that is presented to the class.

Final Paper:

Students are required to submit one final synthesis report or paper. This report should attempt to consolidate the individual's and the group's thoughts on several presentations covered during the semester. They should also add, at least, 10 additional pertinent journal papers used as source material during the course. The final synthesis report along with source material (journal papers) should be submitted on or before the final week of the semester.

Miscellaneous:

Grading will be based on all the material used thorough out the semester. All University policies on attendance and student conduct will be followed.

1. Literature search: 10%
2. 1st Paper presentation: 30%
3. 2nd Paper presentation: 30%
4. Final synthesis paper: 30%

Text:

No text will be required for this course.