

Graduate Module Outline

Title: Physiological techniques of measuring plant stress

Instructor: Dr. Arumugam Thiagarajan

Timing: Winter 2014 (meetings in January/February; Project due in March/April)

Module Description:

This module will explore the fundamental concepts and techniques used by plant and tree physiologists to measure the biotic and abiotic stress responses. In particular, students will learn the critical indicators of stresses such as, chlorophyll fluorescence, accumulation of free radical species and changes in phytohormone concentrations. Additionally, this module will offer limited insight into methodologies specific to the research project of the students.

Delivery format:

This module will comprise the following:

4 hours of lectures and discussions (in a span of 2 sessions)

4 hours of directed studies.

6 hours of mini-project and presentation (customized for graduate students' research)

Course Evaluation Structure:

Directed studies will account for 20% of the evaluation. The mini-project will account for 50% and 30% of the marks will be based on the final presentation.

Preparatory Courses:

Exposure to plant biology and related courses is desirable.