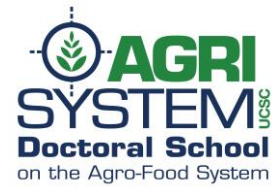# DEVELOPMENT OF DECISION SUPPORT SYSTEMS (DSSs) FOR SUSTAINABLE AGRICULTURE

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COURSE AIMS

The course will provide a general introduction to modelling of agricultural systems with the aim of integrating different models into a Decision Support System. Starting from simple empirical models, system analysis approach and main characteristics of mechanistic models, the course aims at making the students more aware of general concepts and tools nowadays available for an effective modelling approach. Use of models in crop protection will be explored from the use of information of forecasting and warning systems at the farm and regional level to the application of DSSs. Case studies will be presented.

METHODOLOGY

The course will be developed through lectures and discussions with students. Students will be required to attend the course and to work autonomously in small groups. Students' grades will be based on their class work and participation. The course will be taught in English.

COURSE DESCRIPTION

1. An introduction to modelling of agricultural systems: different modelling approaches (2 hours)
2. System analysis as a powerful tool for modelling (2 hour)
3. Development of modern and effective Decision Support Systems. Case studies (2 hours)
4. Class work: perform system analysis approach to a new cropping system for the implementation of a not-yet-existing DSS (2 hours)

RECOMMENDED TEXTS

Reading materials will be provided (posted on the web) during the class.