

AGS 721 (366721) Modeling and Simulation in Agricultural Systems

3(2-3-4)

Course Type Lecture Lab
 Practicum Thesis/IS.

Measurement and Evaluation A-F S/U P

Selected Topic (if any) Count the accumulated credits for graduation every time
 Count the accumulated credits for graduation one- time only

Abbreviation : MODEL SIM AGRI SYST

Prerequisite : 366702 or Consent of the program

Course Description:

System, Simulation and Model System Boundary, Causation and Feedback Behavior of
 Feedback Systems System Variables and Flow Diagrams Introduction to Computer Simulation Software: STELA
 Model Formulation Model Variation and Sensitivity Analysis Model Application

Course Objectives Students will be able to:

1. introduction to system thinking concept
2. develop mechanistic model
3. use tools to link decision support system model

Course Contents	No. of Lect. Hours	No. of Lab. Hours
1. System, Simulation and Model	1	3
2. System Boundary, Causation and Feedback	2	6
3. Behavior of Feedback Systems	3	6
4. System Variables and Flow Diagrams	3	6
5. Introduction to Computer Simulation Software: STELA	3	6
6. Model Formulation	6	6
7. Model Variation and Sensitivity Analysis	6	6
8. Model Application	6	6
Total	<u>30</u>	<u>15</u>