

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 : SPAT INFOR SYST FR RESO MNG

Prerequisite : 366702 or Consent of the program

Course Description:

Fundamental components and processes of spatial information system including data acquisition, analyses and display. The spatial data structure, spatial analyses, system planning and implementing for agricultural planning and resource management. Laboratory works involve the hands-on experience in processes of special information system using microcomputer-based software and real world data

Course Objectives Students will be able to:

1. explain concept of geographic information system
2. making spatial database analysis and simulation
3. apply GIS to system planning and implementing for agricultural planning and resource management

Course Contents

No. of Lect. Hours

1. Fundamentals of GIS	
2. Terrestrial data structures : Representing the real world	2
3. GIS Data Structure : Representing the world in the computer	2
4. Data Quality and Geodatabase	2
5. Spatial Data Input : Preparation and Integration	2
6. Attribute Data Input and Management	2
7. Analysis and Modelling in GIS	2
8. Vector data Analysis	2
9. Raster Data Analysis	2
10. Terrain Mapping and Analysis	2
11. Spatial Modeling : Spatial and Attribute operation	2
12. Advanced and Specialized Modeling and Simulation :	2
Decision Strategy Analysis	
13. Global Positioning System	2

14. Future of GIS : Application of GIS in Agriculture and Natural Resource Management	4
Total	<u>30</u>

Course Contents	No. of Lab. Hours
1. Fundamentals to ArcGIS	3
2. Map Design	3
3. GIS output	3
4. Geodatabase	3
5. Working with Tabular Data	3
6. Creating and editing Spatial Data	3
7. Spatial Data Processing	3
8. Spatial Data AnalysisI	6
9. Spatial Data AnalysisII	6
10. Spatial Data AnalysisIII	6
11. Spatial Data Analysis IV	6
Total	<u>45</u>