

Prerequisite status: -	Unit Type: Theoretical /practical	The number of units: 2	Name of the lesson: <b>Remote sensing and advanced geographic information systems in rural planning</b>
Type of additional practical training: Has it <input checked="" type="checkbox"/> does not have <input type="checkbox"/> science travel <input type="checkbox"/> Laboratory <input type="checkbox"/> Workshop <input checked="" type="checkbox"/> , Seminar <input type="checkbox"/>		The number of hours: 48	Expert professor to teach: Expert in GIS & RS in rural planning
<b>Goals:</b> Acquaintance of students with the concepts, methods, and techniques of remote sensing and geographic information system in the process of rural development planning			
<b>Headlines</b> <b>1-</b> The place of geographic technologies in rural planning (RGT) 2- Concepts and definitions of geographic technologies (RGT) 3- geographical information system (GIS) - The requirements of rural planning and the necessity of using GIS - The field of geography studies and rural planning and the fields of using GIS - Data and information needed for rural planning in the GIS environment - Sources of data and information for rural planning in the GIS environment - Rural planning information system (RPIS) - GIS capabilities in how to extract and derive new information from existing information - Management of rural planning data and information in the GIS environment - Preparation of rural maps using GIS and analysis of point, line, and surface information - GIS applications in locating spaces and types of proposed uses in the village 4- Remote Sensing (RS) - Remote sensing and GIS relationship materials - GIS software and image processing - Classification of remote sensing digital images and their correlation with GIS - Interpretation techniques of remote sensing products - Applications of remote sensing in rural planning 5- Participatory GIS (PGIS)			
<b>Reference</b> 1- Malchevski, Yachek, 2006, Geographic Information System and Multi-Criteria Decision Analysis,			

translated by Akbar Parhizgar and Atta Ghafari Gilane, Samt Publications

2- Williams, Jonathan, 1997. Geographic information from space, translated by Ali Asghar Roshannejad, Tehran Geographic Information Center

3- Makhdoom, Majid. 2004, environmental assessment and planning by organizing geographic information, Tehran University Press

4- Rostami, Shah Bakhti (2015). Geographic technologies in rural planning. Payam Noor University Publications

5- Rostami, Shah Bakhti (2015). Application of geographic information systems in rural planning. Payam Noor University Publications

6- Makhdoom, M., 2006, Land Use Logistics Basics, Tehran, Seventh Edition, Tehran University Press.

7- Malchophski, T., 2006, Geographic Information System and Multi-Criteria Decision Making Analysis, Translated by Akbar Parhizkar and Ata Ghaffari Gilandeh, Tehran, First Edition, The Compiling and Studying Organization of Universities, Humanities Books (SAMT). Majnoonian,

8- Malczewski, J., 2006, ordered Weighted Averaging with Fuzzy Quantifiers: GIS-Based Multi-criteria Evaluation for Land Use Suitability Analysis, International Journal of Applied Earth Observation and Geoinformation, Vol. 8, pp. 270-277.