

Prerequisite status:  -	Unit Type:  Theoretical/practical	The number of units:  2	Name of the lesson:  <b>Advanced remote sensing and gis in geomorphology</b>
Type of additional practical training:  Has it <input 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:  32	
<b>Goals:</b> Creating skills in students to prepare and interpret satellite, reflective and thermal images and quantitative models in GIS			
<b>Headlines</b>  <div>1- Getting to know the types of databases in GIS</div> <div>2- Spatial interpolation methods and their evaluation methods</div> <div>3- Spatial analysis of geomorphology data in the GIS environment</div> <div>4- Elevation models and 3D analysis</div> <div>5- Commonly used gauges in geomorphology, getting to know one of the remote sensing software, how to enter satellite images through the image software, SPOT, IKONOS, IRS, ETM</div> <div>6- Clarifying the spectral and geometric characteristics, preparing color combinations, and checking the displacement between the original image and the map.</div> <div>7- Performing geometric correction using software, determining ground control points and checkpoints, evaluating the accuracy</div> <div>8- The steps of preparing maps from satellite images,</div> <div>9- clarifying and interpreting images,</div> <div>10- classifying and extracting information</div>			
<b>Reference</b>  1- Seyed Kazem, Alavi Panah, 2015, Remote Sensing in Soil and Earth Sciences, Tehran University Press  2- Williams, Jonathan (2001). GIS processing of Geocoded satellite data, UK Praxis publishing Ltd Geomorphology, Berlin, Springer.  3- Bishop, M.P. Schroder, J. (2004), Geographic information science and mountains Geomorphology, Berlin, Springer.  4- Yang, X. (Ed.). (2011). Geoinformatics in Applied Geomorphology. CRC press.  5- Sagar, B. S. D. (2013). , Mathematical morphology in geomorphology and GIS, CRC press.  6- Ramasamy, S.M. (2005). Remote sensing in geomorphology. New India publishing.			