

# GEOS7AB FIELD TRIP and PROJECT

<b>GEOS7AB</b>		<b>ECTS Credits : 3</b>		<b>Semester : S7</b>	
<b>Field trip and project</b>		<b>Duration: 6.5 j. de terrain + 42 h Ecole</b>			
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<b>keywords :</b> Field camp, observation, geological sections and maps, highway, quarry					
<b>Prérequisites :</b> Sense of observation, that's all!					
<b>Objectives :</b> Make a geological map and use it for the design of an highway or a quarry					
<b>Program and content:</b> <p>Based on the principle "to learn to swim, jump into the deep end of the pool", this training period aims to give a direct contact with geology, as well as with geotechnics, via observation of real geological objects, in the field, in all their complexity. The objective is to create a geological map of a sedimentary land sector of about 5 km<sup>2</sup>, in the Lagrasse mountain range (Corbières, Aude).</p> <p>Geological mapping is a difficult discipline that requires making several observations simultaneously, and then recording them in a field book and, above all, on a topographic base; this requires knowing how to orient yourself with precision. The notes taken will serve to create a definitive geological map with an explanatory notice.          A geological map is a basic document, frequently used in geology, geotechnics, hydrogeology, spatial planning, etc. Making a geological map greatly facilitates learning how to read this type of document. There is a strong link here with the courses GEOS7AC and GEOS7AD.</p> <p>Carrying out a preliminary design project of a highway or a quarry crossing of a mapped sector introduces numerous aspects of Geotechnics and Civil Engineering, aspects that will be developed in later courses.</p> <p>The field work is done over 6 days, in September, at the start of the school year. Once back in Nancy, during the project time allotted for the 1st semester, the data collected in the field will be used to:</p> <ul style="list-style-type: none"> <li>• Create a definitive geological map and its explanatory notice (training period report) ; an oral examination completes this period (7 weeks).</li> <li>• Develop a preliminary project of a freeway crossing: a second oral examination completes this period (7 weeks).</li> </ul> <p>Assessment methods:          1/3 field work, 1/3 «geology» report, 1/3 «highway or quarry» report</p>					
<b>Abilities:</b>					
<b>Levels</b>		<b>Description and operational verbs</b>			
<b>Know</b>		Knowledge of sedimentary rocks and main geological structures (faults, horizons, folds).			
<b>Understand</b>		Understand the geological map, at several resolutions and the geological context. Understand the main constraints (economical, environmental, technical or legal) that may influence the design of an highway or a quarry			
<b>Apply</b>		Be able to precisely describe and identify the main sedimentary rocks observed on the field. Georeference geological and structural mark and make reports from the field observations. Be able to construct the geological map of the region.			
<b>Analyse</b>		Analyse the geological, structural and angular relations between the geological objects.			
<b>Summarise</b>		Make a precise and synthetic report presenting the field observations			
<b>Assess</b>					
<b>Evaluations :</b>					
<input type="checkbox"/> Written Test		<input checked="" type="checkbox"/> Continuous Control		<input checked="" type="checkbox"/> Oral presentation	
				<input checked="" type="checkbox"/> Project	
				<input checked="" type="checkbox"/> Written report	