

Course title: Glacier hydrology			
Course code: NRE 136	No. of credits: 3	L-T-P: 25-0-40	Learning hours: 45
Pre-requisite course code and title (if any): Students are expected to have fundamental knowledge of hydrology and issues related to climate change. The course work involves intensive field work in high altitude remote locations; the candidates should be physically fit to carry out the field work in harsh conditions			
Department: Natural and Applied Sciences			
Course coordinator(s):		Course instructor(s):	
Contact details:			
Course type: Elective		Course offered in: Semester 3	
Course description The hydrology of glacierised regions is thermally controlled. Runoff results from interaction of precipitation with environmental thermodynamics. Variations in energy availability lead to fluctuations in melting of snow and ice and production of meltwater. Seasonal variations in the form of precipitation from winter snowfall to summer rain and energy supply peaking to a summer maximum produce strong seasonal periodicity of hydrological event, which influences quantity, quality as well as timing of drainage.			
Course objectives			
<ul style="list-style-type: none"> • To acquaint students with the fundamentals of glacier science, glacier environment and significance of glaciers in regulating water availability. • To understand the basic concepts about flow variations in proglacial streams feeding to hydropower plants in Himalayas. • To encourage and motivate students for advanced glacier research 			