

9D	List of courses addressing Global Needs:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	GL20103-CR	Crystallography & Mineralogy	This course will help the students to identify minerals in thin hand specimens and thin sections, the art and science essential for fundamental research in Geology and mineral identification and exploration
	GL 20105-DCE	Field Training	This course will impart the field knowledge of identifying various geological structures, rock types, mineral deposits, mapping skills, etc, necessary for mineral exploration, disaster management, environmental protection
	GL20106-DCE	Environmental Geology	The ability to recognize and control natural hazards and the environmental effects of engineering projects will be taught to the students. In addition, there are methods for controlling the use of natural resources including water, soil, and minerals, as well as techniques to prevent environmental damage.
	GL20107-DCE	Petroleum and Coal Geology	The course provides the student with essential and basic concepts of exploration of Petroleum and Coal to cater to the global demand for these fossil fuels.
	GL20204-CR	Global Tectonics	The course deals with geological structures resulting from the action of the tectonic forces on rocks. The student will gain knowledge of the geometry of the rock structures, and understand the mechanism of the evolution of rock structures and its application in continental reconfiguration.
	GL20208-DCE	Oceanography and Marine Geology	To provide essential concepts of oceanography and to study the tectonics, geology, economic resources concerning the oceans.
	GL20307-DCE	Ore Geology	The students will get familiarized about the processes involved in the formation of various ore minerals. The students will be appraised about the origin, migration, and accumulation of petroleum; it will also provide basic skills in prospecting, drilling and logging operations in oil exploration. Besides, the students will

		also learn about the process involved in the formation of various deposits.
GL20401-CR	Exploration & Mining Geology	The study of the Earth's structure and processes, plays a crucial role in identifying resource-rich areas through geological surveys and mapping. This foundational step sets the stage for exploration activities, ensuring the responsible extraction of minerals and metals.
GL20402- CR	Quaternary Geology & Paleoclimate	Students should be able to describe how the Earth's climate system works and summarize general atmosphere circulation patterns, ocean circulation patterns and climate oscillations such as the El Niño Southern Oscillation. Besides, they will also be in a position to illustrate the Earth's carbon cycle and quantitatively describe how addition of CO ₂ to the atmosphere due to burning of fossil fuels influence the climate.
G120408-DCE	Medical Geology	On completion of the course the student will be able to understand the distribution of trace elements and its cyclic movement through the abiotic-biotic environment and their influence on human health, flora and fauna.