

GEOL 862 Resource and Sustainability

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This course addresses the role of mineral exploration and mining industries in providing wellbeing for people and ecosystems; includes discussions of the global distribution of, and demand for, water, energy and mineral resources, and the major geological, technological, economic, environmental, social and governance issues. It culminates with the design of solutions based on sustainable management.

This course aims to provide students with a holistic framework to understand the geological, technological, environmental, economic and social issues related to the provision of earth resources and focusing mainly on the critical metals required for evolving society.

Course Topic Highlights:

- Major global Issues and concepts of sustainability
- UN sustainable goals and the provision of critical minerals/metals
- Role and challenges of the scientists, explorationists, engineers working in the fields related to the mineral resource industry
- Ways forward and possible solutions
 - > criteria and indicators to assess the contribution of mining and mineral activities to sustainable development
 - > critical analysis of the established policies for global provision of resources





Holistic Framework	Course Learning Outcomes (CLOs)	Aligned Assessment	Grades
Foundational Knowledge	CLO # 1 <i>Identify</i> the relationship among technical issues such as distribution of water, mineral, and energy resources to sustain the global provision of these natural resources with focus on critical metals	Case Study Report Targeting exploration for specific commodities taken in fi.1.-07 Tc -0.022 Tw 2 Tr 14.04	