- 6. Tucker, M.E. Sedimentary Petrology, 3rd Edn., Blackwell Science, 2001.
- 7. Sam Boggs Jr., Principles of Sedimentology & stratigraphy, 4th Ed, PEARSON publ, 2006
- 8. Sam Boggs Jr., Petrologyof Sedimentary Rocks, 2nd Ed. Cambridge Univ press, 2009
- 9. Greensmith, J. T. Petrology of the Sedimentary Rocks, 7th Ed., UNWIN HYMAN
- 10. Lindholm, R. C. A Practical Approach to Sedimentology, ALLEN & UNWIN, 1987.

GLC-107: Economic Geology

3-0-0 = 3 Credits

Introduction: scope of economic geology Mineral economics. Ore, tenor, gangue, resource, reserves Texture and structures of ore deposits Classification of ore deposits. Ore bearing fluids: type, nature, chemistry Physico-chemical controls of ore deposition Wall-rock alteration. Controls of ore localization. Distribution of ore deposits in relation to plate tectonic settings. Ore Deposits of India (Banded Iron Formations; Iron ore deposits; Manganese ore deposits; Polymetallic ore deposits: copper, lead, zinc; Chromite deposits; Laterite and Bauxite deposits: distribution in India and genesis; Asbestos deposits of India; Barite deposits; Gold in India; Diamond deposits.

List of Books

- 1. Gilbert and Parks: Geology of Ore Deposits
- 2. Parks and McDiarmid: Ore Deposits
- 3. Bateman, A. M.: Economic Mineral Deposits
- 4. Hutchson: Economic Mineral Deposits
- 5. Atkinson: Economic Ore Deposits
- 6. Smirnov: Economic Ore Deposits
- 7. Jensen, M. L. and Bateman, A. M.,: Economic Mineral Deposits
- 8. Brown and Dey: The minerals and nuclear fuels of the Indian Subcontinent
- 9. Burma Roy, B.C., : Indian Mineral Resources: Industries and Economics
- 10. Deb: Industrial Minerals and Rocks of India
- 11. Gokhale and Rao: Ore Deposits of India
- 12. Wadia, D. N.,:Mineral wealth of India
- 13. Krishnaswami: India's Mineral Resources
- 14. Arndt N. & Ganino C.: Metals & Society. Springer.
- 15. Taylor R.: Ore Textures. Springer.

GLC-108: Principles and Stratigraphy and Indian Geology

3-0-0 = 3 Credits

Introduction. Stratigraphic principles. Evolution of Stratigraphic column. Stratigraphic (Lithostratigrapic, Chronostratigraphic and Biostratigraphic) nomenclature. Correlation. Stratigraphy of India: Precambrian, Proterozoic, Palaeozoic, Mesozoic and Cenozoic stratigraphic successions. Gondwana stratigraphy. Quaternary stratigraphy.

List of Books:

- 1. Naqvi, S.M. and Rogers, J.J.W.- Precambrian Geology of India, Oxford University Press.
- 2. Ramakrishnan, M. and Vaidyanadhan, R. Geology of India vol. 1 & 2. Geol. Soc. India.
- 3. Krumbein, W. Stratigraphy and Sedimentation. W. H. Freeman and Company
- 4. Prothero, D. Sedimentary Geology: An introduction to sedimentary rocks and stratigraphy. Freeman & Co.
- 5. Boggs, S. Principles of sedimentology and stratigraphy. Pearson Prentice Hall
- 6. Ravindra, K. Fundamentals of Historical Geology and Stratigraphy of India. New Age International Limited, Publishers.

GLC-121: Geological Field Mapping

0-0-2 = 2 Credits

The student will be taught the techniques of geological mapping, field data collection: recordingthe attitude of beds, foliation, lineation, joints and their analysis. Sampling of rocks, preparation of geological field report. The record of data will be maintained in a field-diary. This work willbe carried out under the supervision of teachers who will accompany the students during the course of the field-traverse. There will be a viva-voce examination based on the field report.

GLC-122: Geological Field Training

0-0-2 = 2 Credits