Palaeozoic Marine Life; Origin and progression of vertebrates; Early adaptations of plants to terrestrial life.
Mesozoic Life: Life after the largest (P/T) mass extinction, life in the Jurassic seas; Origin of mammals; Rise and fall of dinosaurs; Origin of birds; and spread of flowering plants.

UNIT – V (9 Hours)
Detailed contents
Cenozoic Life: Radiation of placental mammals following K/Pg mass extinction; Evolution of modern grasslands and co-evolution of hoofed grazers; Palaeocene-Eocene Thermal Maximum (PETM) deep time analogue for modern greenhouse state; Back to water – Evolution of Whales; The age of humans; Hominid dispersals and climate setting

Tutorial (30 hours)
Students in different batches or groups will be given exercises to prepare shorts reports about the life evolution and extinction through different geological times on Earth.

Essential/recommended readings

Stanley, S.M. & Luczaj, J.A. (2014). Earth System History (4th Edition), W.H.Freeman (Macmillan)
Cowen, R. (2000). History of Life. Wiley-Blackwell.
Benton, M.J. & Harper, D.A.T. (2016). Introduction to Paleobiology and the fossil record. Wiley

Suggestive readings

Stanley, S.M. & Luczaj, J.A. (2014). Earth System History (4th Edition), W.H.Freeman (Macmillan)
Cowen, R. (2000). History of Life. Wiley-Blackwell.
Benton, M.J. & Harper, D.A.T. (2016). Introduction to Paleobiology and the fossil record. Wiley
Canfield, D.E. & Konhauser, K.O. (2012). Fundamentals of Geobiology, Blackwell.
Suggested Reading:
Cowen, R. (2000). History of Life. Wiley-Blackwell.
Lumine, J.I. (1999). Earth-Evolution of a Habitable World, Cambridge University Press.
Lieberman, B.S. & Kaesler, R. (2010). Prehitoric Life-Evolution and the Fossil Record, Wiley-Blackwell.
Lieberman, B.S. & Kaesler, R. (2010). Prehitoric Life-Evolution and the Fossil Record. Wiley-Blackwell.
Cockell, C., Corfield, R., Edwards, N. & Harris, N. (2007). An Introduction to the Earth-Life System Cambridge University Press.