10. Paraffin sectioning and staining techniques
11. Determination of toxic chemicals in different samples.

ESP460 REMOTE SENSING AND GIS LAB.

Course Outcomes:
CO1 Determine pollution status in different areas using map.
CO2 Learn image interpretation of land use.
CO3 Understand GPS survey, compass survey, plane table survey and chain survey.
CO4 Learn different survey method to measure different areas.

1. Survey of a given area using Chain survey method.
2. Survey of a given area using Plane table survey method.
3. Survey of a given area using Compass survey method.
4. Survey of a given area using GPS survey method.
5. Image interpretation of land use/water, vegetation and lithology.
6. Study of geological/contour/drainage pattern maps.
7. Assessment of pollution status in the given map.

OPEN ELECTIVE COURSES

ESE461BASICS OF ENVIRONMENTAL SCIENCE 39 hrs.

Course Outcomes:
CO1 Describe the fundamental aspects of environment and to know the scope of environmental science.
CO2 Understand the structure and composition of atmosphere and hydrosphere.
CO3 Understand fundamental aspects of environment.
CO4 Learn different biogeochemical cycles of elements.

UNIT I (13 hours)
Definition and scope of Environmental Science, Ecosystems - Types, abiotic factors - Soil, Water, Temperature and Light, biotic factors – freshwater, marine water and estuarine habitats. Wetlands and swamps.
Earth and its environment: Structure and Composition. Biosphere-Atmosphere, Lithosphere, Hydrosphere and Water cycle.

UNIT II (13 hours)
Atmosphere: Structure and composition. Temperature, pressure, humidity of atmosphere. Aeroallergens, air particulates and diseases. Winds and clouds – their classification, formation and circulation, artificial rain, acid rain, ozone hole, global warming/greenhouse effect.