MANGALORE UNIVERSITY

DEPARTMENT OF MARINE GEOLOGY

MSc GEOINFORMATICS

GIP 507: WATERRESOURCES AND MARINE GEOINFORMATICS (lab S)

Course Outcome:

CO1: Water resources are the important natural resources and the knowledge of river basins, their catchments, geology and geomorphology will help to manage the water resources in a sustainable manner.

Use of MapInfo/ArcView in quantification of Lakes, Water Bodies, Reserved Forest & Urban Sprawl.

Identification of Drainage pattern, Computation of Stream Density, Stream Frequency,

Ruggedness Number, Thyessen polygons, Precipitation contours, Flow net etc.

Generation of Groundwater potential zone mapping

Isohytal map generation and interpretation

Construction of Chlorophyll-a, SST, Depth, Salinity, Biomass, Total Suspended Matter, Biomass, Distribution Maps.

Instrumentation in *In-situ* collection of Oceanographic Data: Secchi Disc, Water Samplers, Grab Samplers, Anemometers, D. O., Salinity, pH meters etc.

Field Mapping of Coastal Geomorphic Attributes.

CRZ mapping using topographic sheets, Hydrographic charts, Air photographs, Digital data products.

Mapping of Riverine, Beach, Tidal Flat, Rocky and Sandy shore environments from aerial photographs.

Identification & Description of Oceansat, Modis, and other Oceanographic Satellite Images.