



MANGALORE UNIVERSITY
DEPARTMENT OF MARINE GEOLOGY

MGP 507: Physical Oceanography and surveying (Lab, Soft Core)

Course Outcome:

CO1: Practical knowledge will help students to do beach profiling.

CO2: Attain knowledge about field work related to beach dynamics, ocean survey and land surveys.

Physical Oceanography (Lab)

1. Representation of annual wave period percentage frequency of the given region in the form of bar-diagram/histogram and its study.
2. Representation of wave direction data in the form of rose diagram and their study.
3. Interpretation of wave climate for the given data.
4. T-S diagrams
5. CSS diagram and study of waves.
6. Wave forecasting and Wave refraction study.
7. Observation and study of different wave breaker types.
8. Study of waves during rough and fair weather seasons.
9. Preparation and study of tidal curves (mean tidal range, spring and neap tidal range - for different months).
10. Calculation of velocity of sound using Nomograph.
11. Study of major surface current patterns of the Indian Ocean.
12. Study of major surface current patterns of the Atlantic Ocean
13. Study of major surface current patterns of the Pacific Ocean
14. Deep ocean circulation in the Atlantic Ocean.
15. Littoral drift study in the field & lab using dye & tracer techniques.

Surveying (Lab)

1. Chain survey
2. Plane table survey
3. Leveling survey
4. Compass survey
5. Total station survey