

MMO 101-P MARINE POLLUTION AND MICROBIAL REMEDIATION [P]

Practical Course Credit : 1

Contact Hours : 30

1. Use of hydrocarbon degrading marine bacteria to test degradation of sodium benzoate/benzene.
2. Enrichment and isolation of crude oil degrading marine bacteria
3. Isolation of biosurfactant producing microorganisms.
4. Isolation of selenite/tellurite resistant marine-derived bacteria/fungi for application in bioremediation.

Reference Books (Composite list for theory and practicals)

1. Cava, J. H., Karl, D. and Buckley, M., Marine Microbial Diversity: Key to Earth's Habitability, ASM Press.
2. Mitchell, R. and Kirchman, D. L., Microbial Ecology of the Oceans, Wiley Publishers.
3. Belkin, S. and Cowell, R. R., Ocean & Health: Pathogens of the Marine Environment, Springer Publishers.
4. Meller, C. and Wheeler, P.A., Biological Oceanography, Wiley Publishers.
5. Satyanarayana, T., Johri, B. and Anil, T., Microorganisms in Environmental Management, Springer Publishers.
6. Prince, R. C., Bioremediation of Marine Oil Spills. In: Handbook of Hydrocarbon and Lipid Microbiology, Springer Publishers.
7. Judith, S.W., Marine Pollution: What Everyone Needs To Know. Oxford University Press.