

MMO 103-P MARINE MICROBIAL GENOMICS [P]

Practical Course Credit : 1

Contact Hours : 30

1. Isolation of marine bacteria and screening for presence of plasmids.
2. Extraction of environmental DNA from marine/coastal sediments and visualization by electrophoresis.
3. PCR amplification of 16S rDNA using environmental DNA samples as template DNA and electrophoresis.

Reference Books (Composite list for theory and practicals)

1. Bartlett, D. H., Molecular Marine Microbiology. Wymondham, Norfolk, England: Horizon Scientific.
2. Munn, C., Marine microbiology – Ecology and Applications. Garland Science
3. Madigan, M. T., Martink, J. M., Brock's Biology of Microorganisms. Benjamin Cummings.
4. Brown, T. A., Genomes 3, Garland Science.
5. Primrose, S. B., Twyman, R. M., Principles of Gene Manipulation and Genomics, Blackwell Publishers.
6. Tropp, B. E., Molecular Biology: Genes to Proteins. Jones & Bartlett Publishers.
7. Alberts, B., Johnson, A. and Walter P., Molecular Biology of the Cell. Garland Science, NY.