

Programme: M. Sc. (Marine Sciences)

Course Code: MSO 374 **Title of the Course:** Marine Microbial Ecology Practical II

Number of Credits: 01

Effective from AY: June 2018-19

Prerequisites for the course:	Students who have undergone semester I and II of Marine Sciences.	
Objective:	This course elucidates the basic concepts and techniques applied in the Marine Microbiology	
Content:	1. Identification of marine bacteria (4 hrs; Ref 3) 2. Separation of mixed culture, isolation, maintenance and preservation of pure culture (4 hrs; Ref 3) 3. Characterization, biochemical tests (4 hrs; Ref 1) 4. Staining of bacteria and cell morphology (4 hrs; Ref 1) 5. Marine microbes from different ecological niches (water column and sediments) with reference to physico-chemical conditions (8 hrs; Ref 5)	24 hours
Pedagogy:	Identification, isolation and staining of marine microbes	
References/ Readings	1. Bergeys manual of systematic bacteriology (Vol. I), 1984 - (William & Willcens, Baltimore, MD, 518 pg 2. Marine and estuarine microbiology laboratory manual, 1975 – Rita R. Colwell – University Park Press, 1975, 96 pgs. 3. Marine microbiology, a monograph & hydro-bacteriology, 1946 - C.E. Zobell, – Chronica botarica Compare, 240 pgs. 4. Laboratory methods in microbiology, 1966 - W.F. Harigan, M.E. Mc Cance, Academic press 1966, 362 pgs. 5. Manual of environmental microbiology, 1997 - G. J. Hurst , G. R. Knudsen, AsM Press, 894 pgs.	
Learning Outcomes	To acquaint with some of the basic methods/techniques to study the microbiology of marine environment.	