Name of the Program: M.Sc. Marine Microbiology
Course Code: MMI-624
Title of the Course: Ecology and Applications of Marine Fungi Practical
Number of Credits: 01
Effective from AY: 2022 - 23

Prerequisites for the course:	Students should have undergone Part I Courses in their respective post-graduate disciplines.	
Objective:	The course deals with sampling techniques for marine samples, and isolation and identification of marine fungi.	
Content:	**Module I** 1. Study of fungal cultures: colony and morphological characteristics (6 hrs, Ref. 1-3). 2. Isolation and identification of fungi from marine ecosystem (16 hrs, Ref. 1-3). 3. Biosorption experiment using marine fungal isolates (8 hrs, Ref. 4-5).	30 hrs.
Pedagogy:	Laboratory experiments/ tutorials.	
References/ Readings:	1. Alexopoulus, C. J., Mims, C. W., & Blackwell, M. (2017). *Introductory mycology*. (Fourth Edition), New Delhi: John Wiley & Sons. 2. Mehrotra, R. S., & Aneja K. R., (1990). *An Introduction to Mycology*. New Delhi: Wiley Eastern Limited. 3. Borse, B. D., Bhat, J. D., Borse, K. N., Tuwar, N. S., & Pawar, N. S. (2012). *Marine fungi of India (Monograph)*, Panaji: Broadway Publishing House. 4. Dusengemungu, L., Kasali, G., Gwanama, C., & Ouma, K. O. (2020). Recent advances in biosorption of copper and cobalt by filamentous fungi, *Frontiers in Microbiology*, 11, 582016. 5. Lotlikar, N. P., Damare, S. R., Meena, R. M., Linsy, P., & Mascarenhas, B. (2018). Potential of marine-derived fungi to remove hexavalent chromium pollutant from culture broth. *Indian Journal of Microbiology*, 58(2), 182-192.	
Course Outcomes:	1. Compare various morphological features of fungal cultures for identification to genus level. 2. Analyse and apply techniques necessary for isolation of fungi from different marine samples. 3. Design experimental work with fungal cultures on plate as well as in broth. 4. Assess handling of sporulating and non-sporulating fungal cultures during laboratory studies.	