Programme: M. Sc. (Marine Sciences)
Course Code: MSO 378Title of the Course: Marine Geochemistry Practical I
Number of Credits: 01
Effective from AY: June2018-19

Prerequisites for the course:	Should have undergone the course Marine Chemistry Practical I (MSC 166).	
Objective:	This course deals with the Analytical Chemistry of Seawater.	
Content:	1. Determination of dissolved organic N in seawater by alkaline - persulphate oxidation followed by spectrophotometric technique (6 hrs; Ref 1) 2. Determination of dissolved and particulate organic P in seawater by acid - persulphate oxidation followed by spectrophotometric technique (6 hrs; Ref 1) 3. Spectrophotometric determination of dissolved Fe in seawater by TPTZ – ascorbic acid method (6 hrs; Ref 1) 4. Spectrophotometric determination of dissolved Mn in seawater by formaldoxime method (6 hrs; Ref 1) 5. Spectrophotometric determination of dissolved B in seawater by curcumin method (6 hrs; Ref 1)	24 hours
Pedagogy:	Laboratory experiments/ field studies	
References/ Readings	1. Methods of Seawater Analysis, 1983, 1999 – Grasshoff, K., Ehrhardt, M. and Kremling, K.; Verlag Chemie, Weinheim, 419. 2. A Manual of Chemical and Biological Methods for Seawater Analysis, 1984 – Parsons, T. R., Maita, Y. and Lalli, C. M., Pergamon Press, Oxford.	
Learning Outcomes	1. Develop analytical skills to determine the concentrations of various chemical parameters, such as organic N, organic P, Fe, Mn and B in seawater/aqueous systems. 2. Apply techniques to seawater/natural waters to study the biogeochemistry of the marine environment/aquatic systems.	