

Programme: M. Sc. (Marine Sciences)

Course Code: MSO 268

Number of Credits: 04

Effective from AY: June, 2018-19

Title of the Course: Aquaculture

Prerequisites for the course:	Degree of Bachelor of Science of this University or an examination of any other University recognized as equivalent.
Objective:	This course focuses on provision of basic concepts of farming of aquatic organisms. This also educates students to learn different methods of culture, involving preparation of pond to harvesting. Further, it also provides an insight on the national and international status.

Content:	Principles of aquaculture, global scenario, status and prospects of coastal aquaculture in India, traditional aquaculture practices.	12 hours
	Basic considerations, site selection, water quality management, species selection, feasibility and technique applied for mussel, pearl oyster, fish, lobster and seaweed culture practices.	12 hours
	Shrimp aquaculture, types of culture practices, traditional, modified traditional, extensive, modified extensive, semi intensive and intensive, critical requirements, site selection and pond preparation, selection of candidate species, brood stock procurement, hatchery production and management, nutrition, live feed culture and formulated feed preparation, water quality management in hatchery.	12 hours
	Reproduction, induced maturation by eye stalk ablation, role of X organ, sinus gland system, status and prospects of brood stock, domestication and genetic improvement, shrimp diseases, pathology and parasitological, prophylactic and therapeutic measures, Coastal aquaculture Act, 2005.	12 hours
Pedagogy:	lectures/ tutorials/assignments/self-study	
References/ Readings	<ol style="list-style-type: none">1. Stickney, R. R. 2009. Aquaculture: An Introductory Text. 2nd edition. CABI. 304 pages2. Parker, R. 2011. Aquaculture Science. 3rd Edition. Cengage Learning. 672 pages3. Aquaculture, 1989 – Pillai, T.V.R.4. Fish and fisheries of India, 1982 – Jhingran, V.G., Hindustan Publ. Corp. India Ltd. New Delhi5. Diseases of Marine animals – Marine Ecology (Vol 4), 1983 – Kinne, O., Wiley6. Crustacean aquaculture, 1983 Mckey, J.P. CRC series.7. Aquaculture, 1972 – Bardach, J. E, Wiley-Inter-science8. Prawn and prawn fisheries of India, 1976 – Kurian, C.V. & Sebastian, V.O. Hindustan Pub. Corp.9. Environmental management for aquaculture, 1998 – Midlen, A., Springer, Netherlands10. Nutrition and feeding of fish, 1999 – Lovell, T. Springer Science & Business Media	
Learning Outcomes	Provision of knowhow to take up culture of aquatic organisms, harvesting, diseases identification, prophylactic measures, harvesting and marketing.	