Semester	**6**		
Course code	**ZOOL 32543**		
Course Name:	**Aquaculture**		
Credit Value:	3		
Core/Optional	**Optional for the BSc Degree programme.** **Compulsory for the BSc (Honours) Degree programme in Zoology.**		
Pre requisites	**ZOOL 12523**		
Co-requisites	**None**		
Hourly Breakdown	Theory	Practical	Independent Learning
	30	45	75

Course Aim/Intended Learning Outcomes:
After completion of the course unit, the student will be able to;

- describe the scientific procedures, tools and techniques used in edible & ornamental fin fish culture and shrimp culture in a sustainable manner, and
- demonstrate practical skills on tools and techniques used in breeding, rearing and diagnosing diseases encountered in edible & ornamental fin fish culture and shrimp culture.

Course Content:
Theory sessions: Introduction to aquaculture and aquaculture practices, Sustainable aquaculture systems, Breeding of selected freshwater edible fin fish and ornamental fish, Rearing the hatchlings and fry up to marketable size under correct management of environment, Rearing ornamental fish with compatible aquarium plants, Provision of correct nutrition to different development stages of aquarium fish, Prevention/ control of common diseases of aquarium fish, Packing live fish for local and international markets. Production of post-larvae of cultured shrimp, *Penaeus monodon*, Rearing the post-larvae up to marketable size under correct management of environment, Provision of correct nutrition to different development stages of *Penaeus monodon*, Prevention and control of common diseases of cultured shrimp, Processing of harvested shrimp for export.
Practical sessions: Identification of cultured edible, fin fish and shell fish, Freshwater ornamental fish and aquarium plants that could be cultured in Sri Lanka. Setting up of an observation unit using a glass aquarium with selected, compatible ornamental fish species and aquarium plants, Feeding, monitoring water quality and maintenance of health of fish with suitable treatment whenever necessary. Symptoms of common diseases and disease causing agents recorded in freshwater, edible and ornamental fishes in Sri Lanka. Field study at a commercial ornamental fish farm. Identification of development stages of *Penaeus monodon*. Symptoms of common diseases in larval stages, juveniles and brood shrimp recorded in Sri Lanka. Field study at a shrimp hatchery and grow-out farm and a processing plant.

Teaching /Learning Methods: A combination of lectures, laboratory and field studies, assignments, self-studies, computer based learning, and small group discussions.

Assessment Strategy: Continuous assessment and end of course examination.

Continuous Assessment 30%	Final Assessment 70%		
Details: Online and/or in-class assignment/quizzes 30%	Theory (%) 50%	Practical (%) 20%	Other (%)(specify) NA

Recommended reading:

1. Lightner, D.V. (1996). Hand book of shrimp pathology. World Aquaculture Society, USA.
2. Mills, D. (1998). Popular guide to tropical aquarium fishes. Salamander Books Limited, London.
3. Noga, E.J. (2000). Fish Diseases: Diagnosis and treatment. Blackwell Science, Oxford.
4. Pillay, T.V.R. (1990). Aquaculture: Principles and Practices. Fishing News Books, Oxford.