Aquatic Biodiversity and Environmental Pollution - Web course

COURSE OUTLINE

This course is focused on how biodiversity represents the very foundation of human existence in India.

The loss of biodiversity has serious economic and social costs due to human influence.

The genes, species, ecosystems and human knowledge which are being lost represent a living library of options available for adapting to local and global change.

Biodiversity is part of our daily lives and livelihood and constitutes the resources upon which families, communities, nations and future generations depend in India.

This course also focused on conservation and management of biodiversity, remedial options and rejuvenation of lakes in India.

The course discusses the

1. A systematic examination of the full array of organisms.
2. A study of the methods by which diversity can be maintained and used for the benefit of mankind in India.

COURSE DETAIL

Lecture number	Lecture title	No. of Hours
1	Introduction to freshwater ecology.	2
2	Human impacts on fisheries.	1
3	Fish diversity and status.	2
4	Fish sampling methods in rivers, lakes, reservoirs etc.	2
5	Over fishing and mitigation.	1
6	Management and conservation of aquatic biodiversity.	2
7	Human impacts on biodiversity of aquatic ecosystem.	2
8	Capture of fisheries.	1

NP-TEL

NPTEL

http://nptel.iitm.ac.in

Environmental Science

Pre-requisites:

Basic Biology.

Coordinators:

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9	Processing and fish preservation.	1
10	Electro fishing.	2
11	Fish sampling techniques.	1
12	Fishing net and fishing gears.	1
13	Socioeconomic status of fisheries.	1
14	Introduced and invasive fish species.	1
15	Fisheries and economic development.	3
16	Aquaculture.	2
17	Sampling techniques in freshwater fish catch.	2
18	Fish stock assessment.	2
19	Ecology of plankton.	2
20	Freshwater biotic components.	2
21	Environmental toxicology.	2
22	Assessment of freshwater pollution.	2
23	Coral taxonomy, Coral bleaching, Scuba diving and intertidal and underwater coral transplantation.	3
	TOTAL	**40**

References:

1. E.P. Odum 1971, Principles of Environmental Science and Technology.
2. Talwar, P.K. and A.G. Jhingran. 1991. Inland fishes of India.
3. K.C. Jayaram 2002, Fundamentals of Fish Taxonomy.