



PG & RESEARCH DEPARTMENT OF
ENVIRONMENTAL SCIENCES

ADD-ON COURSE

MANGROVE CONSERVATION

DURATION: 40 HOUR

Eligibility: UG & PG Students





COURSE SUMMARY REPORT


2020-2021

Name of Course	ADD-ON COURSE Mangrove conservation (ENV.A21.1)
Course Duration	40 Hours
Department offering the Course	Department of Environmental Sciences
Faculty In Charge	Dr. Brilliant Rajan
Number of Students Enrolled	47
Start Date & End Date	04/01/2021 to 19/03/2021

The add on course on **Mangrove conservation (Env.A.22.1)** has been coordinated by the Department of Environmental Sciences, St John's College, Anchal. The Mangrove conservation course aims to enhance community resilience against natural disasters through protection and rehabilitation of coastal greenbelt using science-based protocols. The course filled with lectures and field visits. The course had a well-defined syllabus and was approved by the IQAC. The add on course was coordinated by Dr Brilliant Rajan, Assistant Professor, Department of Environmental Sciences. The course was properly planned and organised to provide maximum support to students during their learning process. The course duration was 30 hours. 47 students enrolled for the program. The course started on 04.01.2021 and ended on 19.03.2021. During the end of course, an exit examination was conducted. All students wrote the examination. Final assessment was done based on the marks secured by them during the written and practical examination. All students passed in the examination. Certificates were also provided to them after the successful completion of the course.


Course Coordinator

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Mangrove conservation

Syllabus

Total: 40 hrs

The Mangrove conservation course aims to enhance community resilience against natural disasters through protection and rehabilitation of coastal greenbelt using science-based protocols. The course filled with lectures and field visits.

Aim

The course has been designed to build expertise in mangrove ecology, management, Conservation and restoration.

General Objectives

1. Sustainable Coastal Protection through Biodiversity Conservation in Coastal Ecosystems
2. Promotion of Innovative Protective Measures
3. Awareness-Raising and Knowledge Management

Objectives of the course


- To increase awareness on the importance of mangroves and beach forests, and the ecosystems services they provide
- To provide a detailed understanding of the biology and ecology of mangroves and beach forests through lectures and field visits
- To introduce and review hands-on rehabilitation techniques, including site selection of nursery and out planting sites, handling of seedlings, proper planting method, monitoring, and maintenance
- To create a Mangrove Rehabilitation Plan

TARGET PARTICIPANTS

The training course is open to students, conservation practitioners from non-government organizations, academe, private sector, local government units and government agencies.


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ST. JOHN'S COLLEGE, ANCHAL

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Recognised for STAR College by DBT, Govt. of India

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MEN

Course Content:

UNIT 1: INTRODUCTION TO MANGROVES

This unit introduces students to the mangrove – a rare and threatened ecosystem. The geographical distribution, importance to humans and coastal ecology, and global status and threats. Describe the distribution and abundance of Indian mangroves. Biodiversity and the variety and abundance of life in a mangrove ecosystem. (5 hrs)

UNIT 2: MANGROVE ECOSYSTEM STRUCTURE & FUNCTION

Mangrove ecology is the study of abiotic and biotic factors (observed through field study techniques) and organisms live in a variety of habitats. Use keys to identify local mangroves. Design a key to identify mangroves in a local area. Properties of the mangrove environment which contribute to overall forest structure and function. mangrove forests as a habitat and describe the major functional roles filled by animals and plants within and how they interact within the mangrove food web. the vegetation which characterizes the mangrove environment. It provides an overview of the floral groups which occur in the mangrove, including true mangrove plants, mangrove associates and other floral components. faunal biodiversity in the mangrove, the incredible diversity of animals which occur in the mangrove and also how this diversity supports human communities. (13 hrs)

UNIT 3: MANGROVES AND PEOPLE

The role of mangroves in mitigating climate change effects and strategies to help manage mangroves into the future. The concepts of disaster risk in coastal areas and the part that coastal ecosystems and specifically mangroves can play in reducing this risk (e.g. cyclones, storm surges, hurricanes, and tsunamis) and in protecting coasts. Mangroves support the livelihoods of many people, describes the many services provided by these ecosystems and their benefits to human communities. Describe economic value of mangroves, threats to mangroves and management issues. investigate mangrove water quality. (12 hrs)

UNIT 4: MANGROVE CONSERVATION, RESTORATION AND AFFORESTATION

Deforestation for timber, charcoal, aquaculture, agriculture and development are all primary drivers for the loss or degradation of mangrove forests, decline of fishery resources and other environmental consequences. the techniques that have been used to restore or increase mangrove areas, national policies and laws that affect mangrove conservation and biodiversity. Sustainable management practices, economic and ecological, essential steps to the conservation of mangroves and to encourage sustainable management practices. (10 hrs)

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