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# KHARAGPUR COLLEGE KHARAGPUR

ESTD.: 1949

P.O.– Inda, Kharagpur, Municipality– Kharagpur, Sub-Division– Kharagpur, P.S.– Kharagpur (T), Dist.– Paschim Medinipur, West Bengal, PIN–721305.

## This is in answer to your DVV Query against metric 1.2.1 of Criterion 1 of the SSR:

The HEI wishes to inform that the below mentioned certificate courses are not part of any course under the university curriculum. They have been designed keeping in mind the extension of the knowledge base of the students and tend to align more towards being value added courses. In response to the question raised in the DVV query of a few courses being more of vocational structure, the HEI would like to clarify that unlike the modules of Vocational courses, these courses have been designed keeping in mind:

- Imparting more of theoretical knowledge than practical knowledge unlike vocational courses
- Not part of any University prescribed curriculum
- Adds to the knowledge domain of the students and extends them

A few of the courses mentioned in the DVV query are purely theoretical in nature of their knowledge extension and has already been mapped with their respective core courses. The following courses are not part of any of the University curriculum and thus their modules are provided for mapping:

Name of the Course	Offered By:
Certificate Course on First Aid organised in association with St	NSS Unit
John Ambulance	
Certificate course on Karate, Self-defense, Kick-Boxing and Fitness	NSS Unit
GREEN AUDIT	Kharagpur College
YOGA	Kharagpur College



ATTESTED

Principal

Kharagpur College

# CERTIFICATE COURSE ON GREEN AUDIT

### **SYLLABUS**

(Theory- 40, Practical- 20)

#### **Theory**

- 1. Concept in ecology, scope of ecology, inter relationships between the living world and the environment
- 2. Structure and function of ecosystem, food chain, food pyramids, pond ecosystem, eutrophication
- 3. Plant adaptations- Hydrophytes, Xerophytes and Mesophytes
- 4. Plant succession- types, processes and climax concept
- 5. Composition of soil, physical, chemical and biological components of soil, soil profile, types of soil, role of soil in cultivation, fertilizer management, chemical fertilizer and bio fertilizer, soil erosion, soil toxicity, soil health, soil microbes and sustainable use
- 6. Hydrosphere, hydrological cycle, water table, water conservation, wetland and its conservation
- 7. General account of environment pollution and control (soil, water, air), plastic as a pollutant
- 8. Concept of centres of origin, their importance with reference to Vavilov's work, cultivation of potato, brinjal, tomato, ladies finger and sugarcane
- 9. Natural resources, biological resources, renewable and non-renewable sources of energy, sustainable utilization, contemporary practices of resource management and conservation, carbon footprint.
- 10. Medicinal plants, conservation processes, importance of the following medicinal plants-(Ocimum tenuiflorum, Adhatoda vasica, Catharanthus roseus, Andrographis paniculata, Centella asiatica, Azadirachta indica, Curcuma longa, Zingiber officinale, Aloe vera, Hygrophila spinosa)
- 11. Biodiversity, significance, causes and impact of loss, conservation, Role of Forest, effect of deforestation, Green House effect and climate change; Effect on agriculture and biodiversity. Forest act 1997. Indian Wildlife act.

#### **Practical**

- 1. Study plant community in the college campus
- 2. Microbial flora of water (aquatic zone in the college campus)
- 3. Determination of pH of water and soil
- 4. Carbon footprint
- 5. Preparation of compost
- 6. Water management, details of water analysis of college, conservation of water
- 7. Energy management, monthly energy utilization by different appliances in the college
- 8. Field report with a field excursion