

# CHE 110: Environmental Studies

## Unit - 1

### INTRODUCTION TO ENVIRONMENTAL STUDIES

#### *Unit: 1\_Lecture: 1\_CHE110\_VK*



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❑ The term *environment* is derived from a French word *environner* which means ‘surrounding’. It refers to an aggregate of all conditions that affect the existence, growth, and welfare of an organism or a group of organisms.

The term may be defined in a number of ways:

- Environment is the sum total of all social, economical, biological, physical, and chemical factors which constitute the surroundings of humans, who are both creators and moulders of the environment.
- Environment is the sum total of influences which modify and determine the development of life and its associated characteristics.
- The elements of environments are interconnected to each other in a complicated way (spider web) : disturbance of one element will affect the other one.

❑ The components of environment are broadly classified as *abiotic* and *biotic* components.

➤ **Abiotic** or non-living components of environment include all the physical and chemical factors that influence living organisms.

Examples of abiotic components are air, water, soil, rocks, etc.

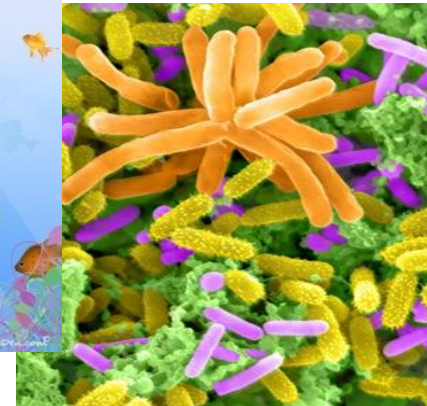
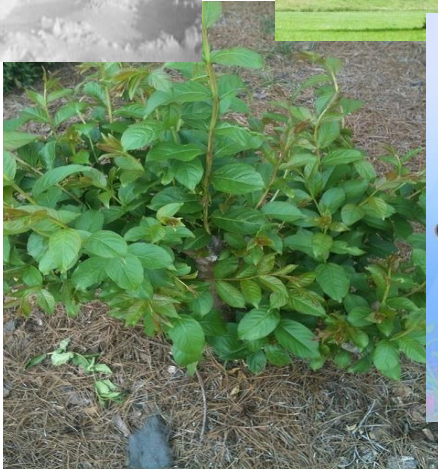
➤ **Biotic** or living components are the living components of environment and include microbes, plants, animals, and human beings.

# Abiotic Components



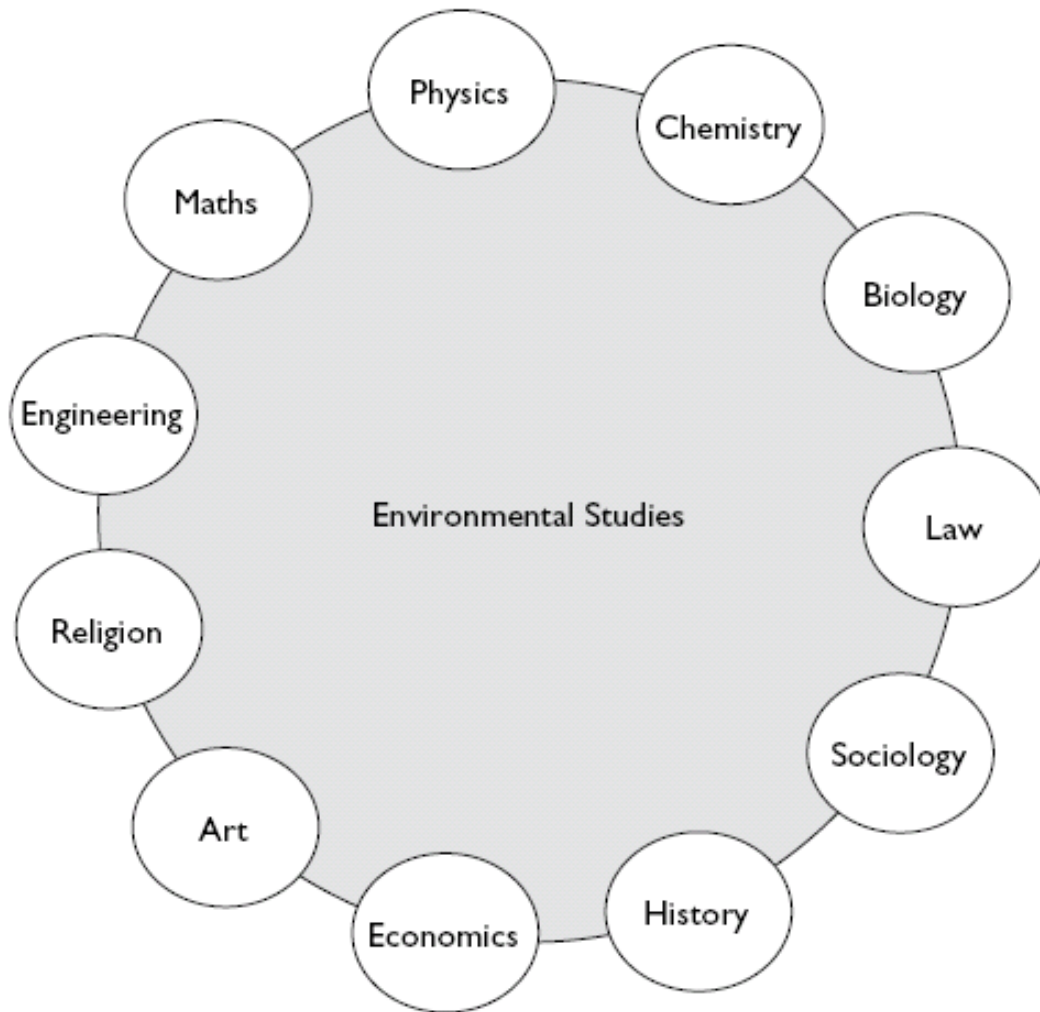


# Biotic Components



- ❑ Environmental Studies refers to the study of the environment.
- ❑ It is not restricted to the point of view of one particular discipline but involves all disciplines that may affect the environment in any possible way.
- ❑ It involves the study and understanding of the fact that even a single phenomenon
- ❑ This phenomenon can affect the environment in a variety of ways with varying degrees of complexity,
- ❑ Each of these effects can be understood from different perspectives rooted in different disciplines.

# Multidisciplinary Nature of Environmental Studies



Environmental Studies requires skills that encompass a range of disciplines including

- Chemistry
- Biology
- Earth sciences
- Atmospheric science
- Statistics
- Mathematics
- Geography.

- Ecosystem structure and function
- Natural resource conservation
- Environmental pollution control
- Environmental management
- Environmental impact assessment
- Research and development
- Social development
- Forest management
- Environmental consulting firms
- Environmental journalism
- Environmentalists



# Importance of Environmental Studies



- ❑ Environmental Studies is useful in checking environmental pollution and related solutions.
- ❑ It helps in maintaining ecological balance.
- ❑ It helps to gain skills to assess the environmental impact of human activities.
- ❑ Environmental study will help to protect biodiversity.
- ❑ It gives us basic knowledge of environment and associated problems.
- ❑ It helps to achieve sustainable development
- ❑ It helps to educate people regarding their duties towards the protection of environment.
- ❑ The knowledge of environmental science will be applied to the study of agriculture.

What is env: <https://www.youtube.com/watch?v=TSK1asvoE4k>