Ability Enhancement Compulsory Course(AECC-Environment Studies)

SYBSc. Semester III

Syllabus

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Unit 1. Introduction to environmental studies

- Multidisciplinary nature of environmental studies.
- Scope and importance concept of sustainability and sustainable development.

- EVS is a multidisciplinary academic field that is involved with the exploration, research, and expansion of an understanding of the living and physical environment.
- It also helps in a better understanding of the natural, political, technological, economic, social, and cultural aspects of environments.
- It can also be said that environmental studies or EVS is the science of physical phenomena in the environment.

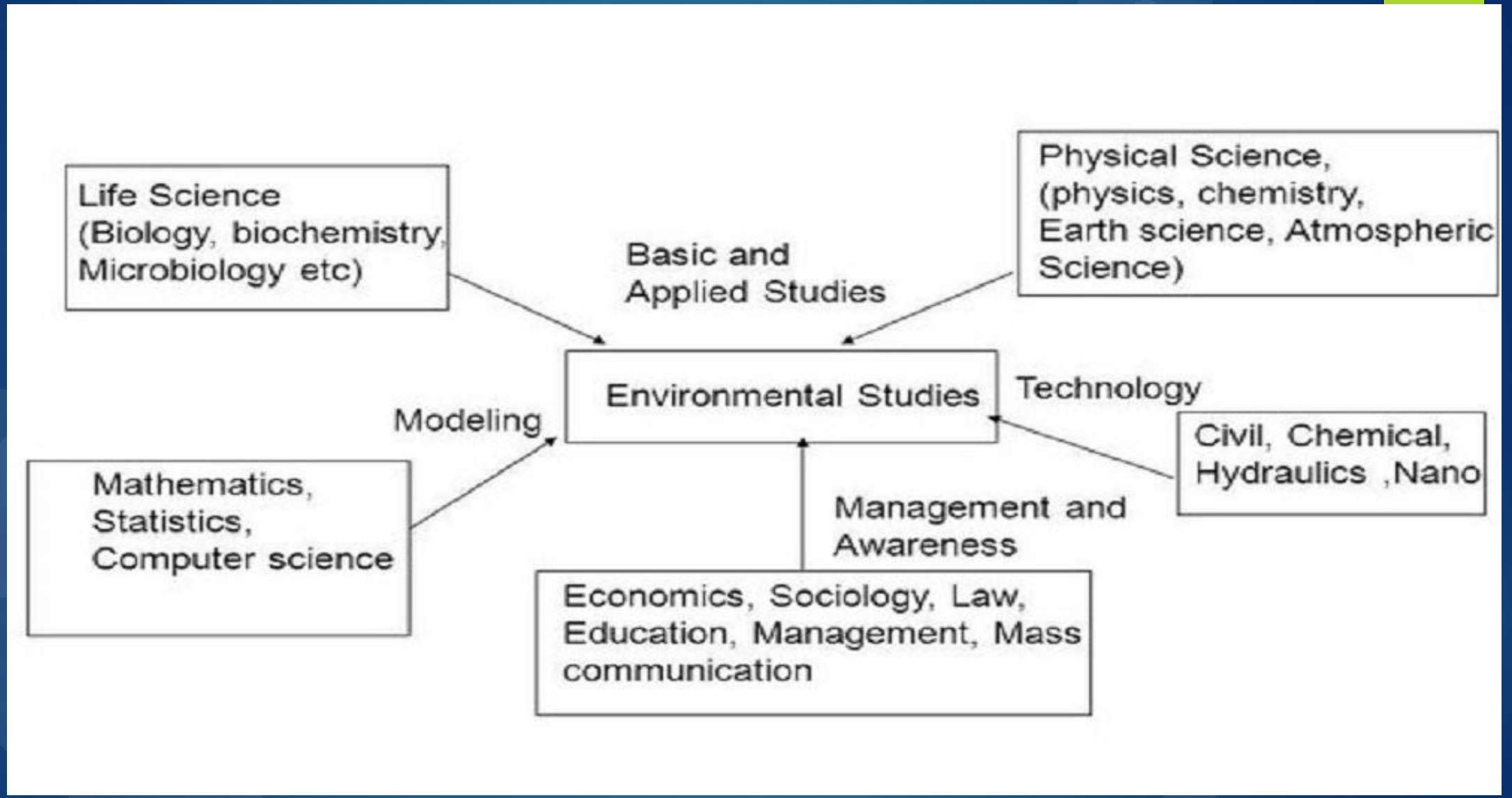
- Multidisciplinary meaning:
- Firstly, we understand the term disciplinary. The word ‘disciplinary’ means to have a disciplined study in a particular field.
- On the contrary, multidisciplinary refers to the combination of more than one discipline or field of study.
- It defines the multi-sectoral, and multi-dimensional study in various fields.
- For instance, when you study various subjects such as science, social science, mathematics, english, etc., Then it is considered a multidisciplinary course of study.

- Environmental study is a vast subject to be studied upon.
- It has all the aspects of various subjects such as anthropology, science, social science, statistics, economics, computers, geology, health, and sociology.
- It illustrates the multi-sectoral and multi-dimensional study in various fields. It also educates us about the physical, social, cultural, and biological aspects.
- It brings our natural environment and human impacts altogether.
- It is a multidisciplinary approach that deals with every issue that affects an organism. It covers the impacts of environmental science and social aspects of the environment as well.

- Multidisciplinary nature of environmental studies.
- Introduction :
- The word environment is derived from the french word ‘environner’ which means to ‘encircle or surround’.
- Thus our environment can be defined as “the social, cultural and physical conditions that surround, affect and influence the survival, growth and development of people, animals and plants”
- This broad definition includes the natural world and the technological environment as well as the cultural and social contexts that shape human lives.
- It includes all factors (living and nonliving) that affect an individual organism or population at any point in the life cycle; set of circumstances surrounding a particular occurrence and all the things that surrounds us.

- SEGMENTS OF ENVIRONMENT
- Environment consists of four segments.
- 1. Atmosphere- blanket of gases surrounding the earth.
- 2. Hydrosphere- various water bodies present on the earth.
- 3. Lithosphere- contains various types of soils and rocks on the earth.
  4. Biosphere- composed of all living organisms and their interactions with the environment.

- Multidisciplinary nature of environmental studies:
- The environment studies is a multi-disciplinary science because it comprises various branches of studies like chemistry, physics, medical science, life science, agriculture, public health, sanitary engineering etc.
- It is the science of physical phenomena in the environment. It studies about the sources, reactions, transport, effect and fate of physical and biological species in the air, water, soil and the effect of from human activity upon these.


Life Science
(Biology, biochemistry,
Microbiology etc)
Physical Science,
(physics, chemistry,
Earth science, Atmospheric
Science)
Basic and
Applied Studies
Environmental Studies
Technology
Civil, Chemical,
Hydraulics ,Nano
Modeling
Mathematics,
Statistics,
Computer science
Management and
Awareness
Economics, Sociology, Law,
Education, Management, Mass
communication

- As the environment is complex and actually made up of many different environments like natural, constructed and cultural environments, environmental studies is inter disciplinary in nature including the study of biology, geology, politics, policy studies, law, religion engineering, chemistry and economics to understand the humanity’s effects on the natural world
- This subject educates the students to appreciate the complexity of environmental issues and citizens and experts in many fields.
- By studying environmental science, students may develop a breadth of the interdisciplinary and methodological knowledge in the environmental fields that enables them to facilitate the definition and solution of environmental problems.

Environmental studies are made up of several components. They are as follows:

Anthropology: it is the study of human traits, biological and psychological well-being, communities and cultures, and the growth and evolution of humans. EVS is connected to anthropology since it studies humans and their environments throughout place and time.

Biology: it is a field of science that focuses on the study of living creatures. Their physical structure, chemical processes, molecular interactions, development, and evolution are all included. EVS is connected to biology since it is concerned with the natural environment of living creatures.

Chemistry: it is a field of science that examines chemicals and the components that makeup matter. Understanding natural occurrences in EVS necessitates knowledge of chemistry.

Computers: As The World Has Progressed, Computers Have Become A Need For Everyone. Computers Are Used By The Environmental Protection Agency To Keep Track Of Pollutants Found In Soil And Water.

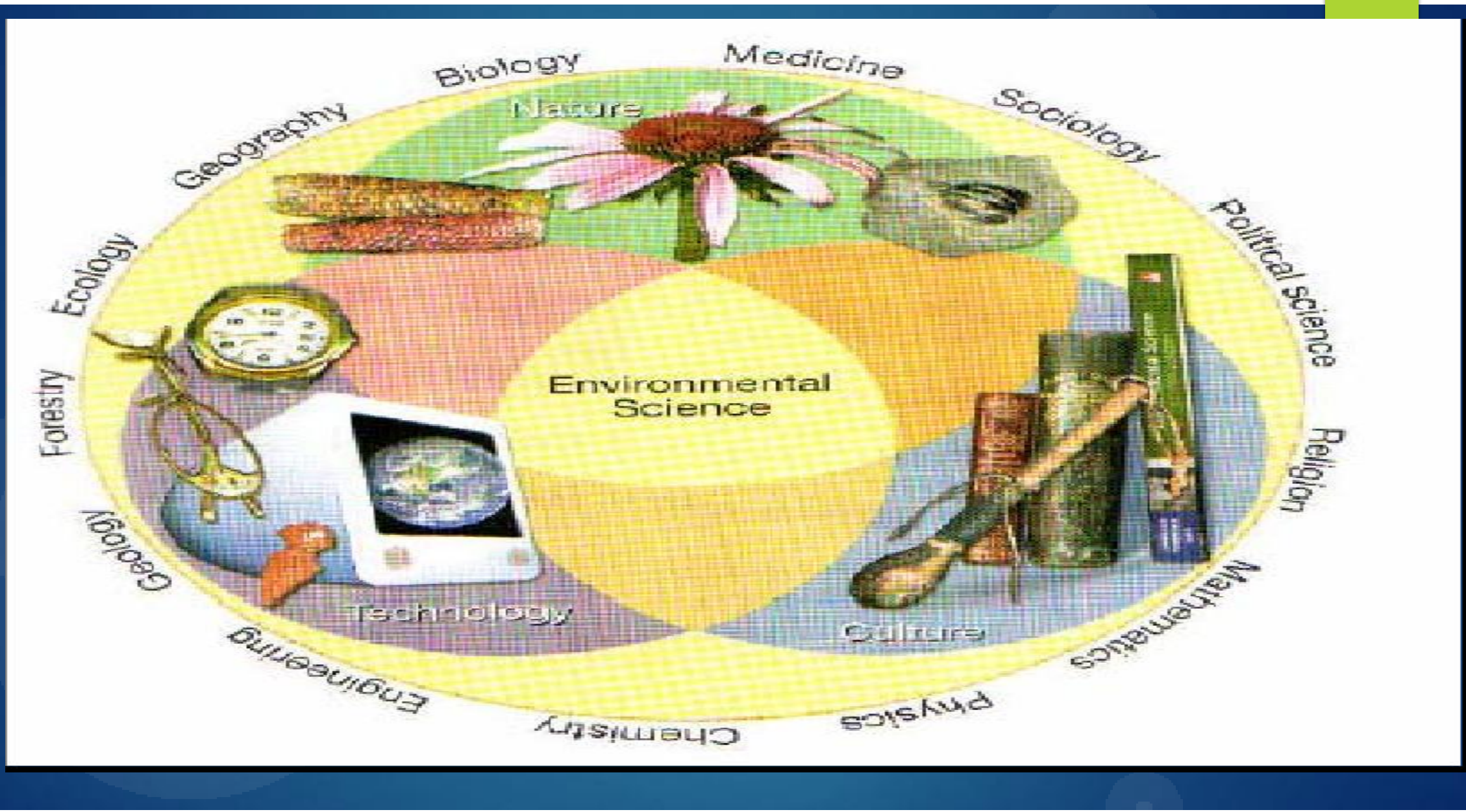
Geology: It Is The Study Of Physical Structures And Substances Found On Earth, As Well As Their History And The Processes That They Go Through. EVS Is Also Concerned With The Study Of The Earth And Environment.

Economics: It Is A Field Of Study Concerned With The Production, Consumption, And Distribution Of Commodities And Services. Various Economic Strategies Have Been Established To Preserve The Environment From Pollution, Global Warming, And Climate Change By Evaluating And Developing Answers Or Cures For Environmental

Physics: It Is A Field Of Science That Examines Energy And Matter In Space And Time, As Well As Their Interactions. Physics Is Concerned With Energy Conservation, Atmospheric Modelling, And Many Environmental Concerns.

Sociology: It Is The Study Of Social Life, Change, Social Causes, And The Social Repercussions Of Human Action. It Also Addresses The Connection Between Contemporary Society And The Environment.

Statistics: it is the study of quantitative data collection, analysis, interpretation, and presentation. It is also used to evaluate data in order to find trends and recommend the optimal environmental growth.


Biology
Medicine
Geography
Sociology
Ecology
Political science
Forestry
Religion
Geology
Mathematics
Engineering
Chemistry
Physics
Nature
Environmental Science
Technology
Culture

Thank You