Lecture 1: An Introduction to Social and Human Sciences

1. Three domains of Science

There are three broad domains of science:

1. The ***natural sciences*** are concerned with the natural environment in which human beings exist. Natural science is the science of naturally occurring objects or phenomena, such as light, objects, matter, earth, celestial bodies, or the human body. Natural sciences can be further classified into physical sciences, earth sciences, life sciences, and others. Physical sciences consist of disciplines such as physics (the science of physical objects), chemistry (the science of matter), and astronomy (the science of celestial objects). Earth sciences consist of disciplines such as geology (the science of the earth). Life sciences include disciplines such as biology (the science of human bodies) and botany (the science of plants).
2. The ***humanities/human sciences*** are concerned with human existence, history, culture, thought and creativity. They deal with literature, music, art, philosophy...etc.
3. The ***social sciences:*** includes disciplines such as *sociology, economics, psychology, geography, political science.* Social science refers to the field of human knowledge that deals with all aspects of the life of human beings. It deals with knowledge concerned with all aspects of society and human beings themselves.

Each of these fields is subdivided into a number of specialized sciences or disciplines to facilitate more intensive study and deeper understanding.

2. Basic Definitions

1.1. What is Society?

The idea of society, what it is and what it is made of, is a vital starting point for understanding social and human sciences.

Exercise: Answer the following questions.

1. What is society? What is society made of?
2. What do people in society share?
3. What do relationships between people in society include?

Society is made of…	**People in society share…**	**Relationships between people in society include…**

A society is made up of people. Usually, people in a society live within a particular space, such as a country. One society can be comprised of many communities.

People in a society often share a similar culture. A culture refers to the beliefs, values and customs that members of a society often have in common. However, one society can also consist of people from many different cultures.

People in a society are connected through their relationships to each other. For example, as family members, neighbours, work or school mates. They may also be members of cultural, business, religious or political groups.

1.2. What is Science?

Etymologically, the word "science" is derived from the Latin word *Scientia,* meaning knowledge. To some people, science refers to difficult high school or college-level courses such as physics, chemistry, and biology meant only for the brightest students. To others, science is a craft practised by scientists in white coats using specialized equipment in their laboratories.

Science refers to a systematic and organized body of knowledge **in any area of inquiry** that is acquired using "the scientific method". The latter refers **to a standardized set of techniques for building scientific knowledge, such as how to make valid observations, how to interpret results, and how to generalize those results.** The scientific method allows researchers to independently and impartially test pre-existing theories and prior findings, and subject them to open debate, modifications, or enhancements. The scientific method must satisfy **four key characteristics**:

- ***Logical:*** Scientific inferences must be based on logical principles of reasoning.
- ***Confirmable:*** Inferences derived must match with observed evidence.
- ***Repeatable:*** Other scientists should be able to independently replicate or repeat a scientific study and obtain similar, if not identical, results.
- ***Scrutinizable:*** The procedures used and the inferences derived must withstand critical scrutiny (peer review) by other scientists.

Any branch of inquiry that does not allow the scientific method to test its basic laws or theories cannot be called "science." For instance, theology (the study of religion) is not science because theological ideas (such as the presence of God) cannot be tested by independent observers using a logical, confirmable, repeatable, and scrutinizable method.

Lecture 2: An Overview of Social Sciences

1. What is Social Science?

Social science is the branch of science devoted to the study of societies and the relationship among individuals within those societies. The term was formerly used to refer to the field of sociology, the original "science of society", established in the 19th century.

Social science is the study of peoples and societies.

• Social refers to the relationships between people in a society.

• Science is the organised and systematic study of things and how they work.

Social science tries to understand how society works. It looks at how people in society relate to each other and to their environment. It can include the study of individuals, families, groups, organisations or whole countries. For example, a social scientist might want to understand why some people in society are rich and others are poor, or how building a dam on a river will affect the lives of people who live by the river.

People have different ideas about how society is or should be. This makes social science different from natural science like biology, chemistry or physics. For example, we know humans need food and oxygen to survive. These are *scientific facts*. Social science studies human behaviour and relationships and the effects that they have on society. Many things about people and society are more difficult to claim as 'facts'. For example, how people's views about religion or politics affect development. It is likely that social scientists will get different answers depending on who they ask.

Exercise: Are these statements true or false? If false, say why.

1. Social science might study one person or an entire community.

2. Biology, chemistry and physics are examples of social science.

3. Natural science can establish facts about the physical world.

4. Social scientists always get the same results when they study the same thing.

2. The Importance of Studying Social Sciences

2.1. Prevailing Perceptions of the Social Sciences

- social science is a non-utility subject. From the initial stages of schooling, it is often suggested to students that the natural sciences are superior to the social sciences, and are the domain of ‘bright’ students. As a result, low self-esteem governs the classroom-

transaction process, with both teachers and students feeling uninterested in comprehending its contents.

- ❖ Social science merely transmits information and is too centred, on the text, which is required to be memorised for examinations. The content is considered to be unconnected to daily realities . In addition, social science is viewed as providing unnecessary details about the past. It is also felt that the examination paper rewards the memorisation of these superfluous 'facts', with the learner's conceptual understanding being largely ignored.
- ❖ Not many desirable job options are open to students specialising in the social sciences. In addition, it is felt that the social sciences are bereft of the 'skills' required to function in the real world. This produces the impression that the subject is redundant.

2.2. Why is studying social sciences important?

Studying social science is valuable for personal, community, work and education reasons. Social science studies human behaviour and relationships. We are all human and we all experience or relate to the things studied in social science. Learning about different issues and how they affect people helps us see things from other points of view and in new ways. That is important for understanding (and for being part of) the communities that we live in.

The skills that we learn from studying social science are useful for many kinds of work. Employers often look for these skills. They include conducting research, working with others, problem solving, and decision making. These skills are needed in industry, business, government, non-governmental organisations, and education.

Research means systematically studying something and creating new knowledge about it. Three important steps in research are data collection, thinking critically, and analysis.

• **Data collection** means systematically searching for and collecting information (data) about the thing you are researching. Data can include written material, interviews, or surveys, etc.

•**Thinking critically** means not accepting everything you read or hear. Instead, it involves thinking for yourself, recognising opinions and bias in what other people say and write and questioning those things.

• **Analysis** means to look closely at data in a systematic way to try to understand how it relates to the central research topic.

Conclusions about what the research has found are then drawn from the analysis and the research is usually presented in a written report.

Therefore, the social sciences are essential to provide social, cultural, and analytical skills required to adjust to an increasingly interdependent world, and to deal with political and economic realities.

Exercise: Match the skills a-c to the examples (i-iii) that best demonstrates that skill.

a. data collection **b.** thinking critically **c.** analysis

i. Mr X interviewed people from 30 households in her village about why some people there could not access medical care.

ii. Mr Y sorted what people said in each interview into categories: people who live in towns and people who live in the country; men and women; and employed and unemployed.

iii. Ms X didn't believe what she read on the website of a factory about protecting the environment. So she read reports by environmental groups about the factory and spoke to local people.

Exercise: Categorising – Social Science Skills

1. In scenarios i-ix, below, decide if each sentence describes (Some sentences might describe more than one skill).

a. data collection **b.** thinking critically **c.** analysis **d.** presenting conclusions from research.

2. Explain your answers

a. A new road is being built through your town. You want to find out more about its effects on people, the economy and the environment.

b. You collect and read newspaper articles about the planned road .

c. You read one article carefully and notice it only talks about how the road will be good for the town and not any problems that it might cause.

d. You look online to find out about the person who wrote the article and see they are working for the road building company.

e. You then search online for information about the results of an environmental **impact** assessment for the planned road the company had submitted to the Ministry of Conservation.

f. You conduct interviews with people living near where the road will go.

g. You read each interview and place concerns people mentioned about the road into three categories – **livelihoods**, economy and environment – to see which of those concerns occur the most.

h. For each of the three main effects, you break them down into concerns held by men and concerns held by women, to see if they are the same or different.

i. You write a report about what you found from your analysis of the interviews and distribute it to the people affected by the road and to the company building it.

3. The Disciplines of Social Sciences

Social science looks at a wide range of things/issues that affect or are affected by people and society. Some examples of things/issues that social science might study are:

• How economic change affects people differently. For example, a company might want to build a new factory. Some people might sell their land to the company to become rich. Other people would have to work at the factory instead of being farmers.
• How decisions about development affect the environment and people. For example, a plan to build a new factory in a town might bring jobs but it might also pollute the local river. The pollution will damage the livelihoods of local fishing communities.
• How religion or culture affects politics. For example, some people might not allow people from other religions or cultures to be involved in politics or become political leaders in the community.

Social science encompasses a wide array of academic disciplines. Some of the main ones include sociology, economics, psychology, geography, political science , development, environmental studies, public health…

Exercise: What are the social sciences referred to in the actions below.

1. You interview people about what makes them feel more comfortable in new situations and how they think about those situations.
2. You study the constitutions of different countries around the world.
3. You study how the amount of fresh vegetables available affects their prices in local markets.
4. You work on a project to **assess** the effects of new roads on the lives of small farming communities.

1. **Sociology:** the systematic study of society, individuals' relationship to their societies, the consequences of difference, and other aspects of human social action. Sociologists assume that behaviour is influenced by people's social, political, occupational, and intellectual groupings and by the particular settings in which they find themselves at one time or another.

2. Economics: the study of the production, distribution, buying and selling of goods and services. It is also defined as "the study of how people seek to satisfy needs and wants" and "the study of the financial aspects of human behaviour". Economics has two broad branches: microeconomics, where the unit of analysis is the individual agent, such as a household or firm, and macroeconomics, where the unit of analysis is an economy as a whole.

3. Psychology: the study of the human mind. Psychology also refers to the application of such knowledge to various spheres of human activity, including problems of individuals' daily lives and the treatment of mental illness. Psychology is a social science because humans are social creatures. It

focuses on the individual and physical processes, such as: biological structure, development and maturation. Out of the various branches of psychology, the most relevant to social science is social psychology, which studies individual's behaviour as it influences and is influenced by the behaviour of others. Some specific topics that interest psychologists and social psychologists are socialization, environment and heredity, and adjustment and maladjustment. Psychology deals with natural phenomena such as emotion, memory, perception, and intelligence.

4. Geography: the study of the natural environment and how it influences social and cultural development. Some of the concerns of geography are ecology, climate, resources, accessibility and demography. It can be split broadly into two main sub fields: human geography and physical geography. The former focuses largely on the built environment and how space is created, viewed and managed by humans as well as the influence humans have on the space they occupy. This may involve cultural geography, transportation, health, military operations, and cities. The latter examines the natural environment and how the climate, vegetation and life, soil, oceans, water and landforms are produced and interact. As a result of the two subfields using different approaches a third field has emerged, which is environmental geography. Environmental geography combines physical and human geography and looks at the interactions between the environment and humans.

5. Political Science: Political science is the study of the systems that societies use to organise themselves, and which people or groups in society have power and why. More specifically, Political science is an academic and research discipline that deals with the theory and practice of politics and the description and analysis of political systems and political behaviour. Students learn about the rise of political institutions, the law-making process, and the interactions between political powers. Some political scientists specialize in political theory, whereas others study international relations, comparative politics, American politics...etc).

6. Development : looks at economic and social change and the social and environmental impacts that come from those changes. The study of development is divided into economic development and social and community development. The former aims to improve people's lives through growing the economy of a country. Economic growth can create more jobs and raise the amount that people earn (income). This helps them to pay for needs, like food and housing. As people earn more, they can then afford more of the goods that they want, like computers or cars. The latter focuses more on education, health and people's well-being. Social development often encourages people to be more involved in economic and political decisions that affect them and their communities.