

# HISTORY AND PHILOSOPHY OF SCIENCE

# The Nature of Philosophy and Philosophy's Concern with Other Disciplines

## Two sides of the same coin

- 1. The course deals with how science developed historically
- 2. the course also deals with how the tools of philosophy are employed for interrogating salient concepts, issues in the discipline of science

- There is no strong need to emphasise the division because the history of science is embedded in the historical development of philosophy as an academic discipline.
- The emphasis on the two is because it is possible to discuss issues in philosophy of science without touching on the history of it

# Aim of the course

- Making the student become conversant with the history of science
- Making the student conversant with issues in philosophy of science
- Teaching the student about the way philosophy treats issues in science
- To equip the student with necessary tools of engaging science from the historical, ethical, social perspectives etc.

# Why the emphasis on science?

- Science determines so much in our world today.
- Science has played an important role in history
- This is because science plays an important role in the survival and development of our world
- This is also because the future of our world can only be secured through science- by combating global warming, finding cure to illnesses
- More importantly to address the misunderstanding about what science is
- In order to understand and know the limits of the scientific method.

# The Nature of Philosophy

- In Philosophy all ideas are subject to critical interrogation
- Done through asking questions
- Asking Questions will lead to the production of rational answers
- Aims at providing guide to humans.
- Philosophy is an inquiry into the fundamental of things around us

# The Need to suspend Prejudices

- Religion,
- Ideologies
- Education
- Ethnicity/Race
- emotions



# Subject-Matter of Philosophy

- Whereas it can be said that philosophy has not subject-matter, and by this is meant that unlike disciplines like physics, chemistry, economics, law etc, philosophy has not single subject it studies, yet this is misleading in a way
- There is no limit to the subject matter of philosophy. it studies everything
- First, there are the core traditional subject-matters studies under the four cardinal branches: Epistemology, Metaphysics, Logic, and Ethics, with each studying: Knowledge, reality, laws of thought, and morality respectively

# Second Order Disciplines

- Second, philosophy studies everything else. Law, economics, politics, sciences, social science.
- Philosophy of Social Science
- Philosophy of Law
- Philosophy of Education
- Philosophy of History
- Philosophy of Culture
- Philosophy of Art
- Philosophy of Language

# Philosophy and Other Disciplines

- Why is Philosophy interested in other disciplines generally?
- Historically, other disciplines were an extension of philosophy as they were studied as part of philosophy
- Philosophy is concerned with other disciplines in order to investigate the theoretical foundation of these other disciplines
- To ensure that dialogue between philosophy (the mother) and other disciplines (offspring).

- To keep other disciplines in check and on their toes
- To ensure that there is constant ethical appraisal
- To ensure that the ideological underpinning of other disciplines is properly investigated so that bad ideology is separated from good ideologies in the case of Africa

# A Definition of Philosophy

- Philosophy may be defined as an intellectual endeavour, subjecting to rigorous examination the basic or fundamental assumptions and/or issues of life. Philosophy involves critical reflection on any issue of life in particular, or life itself in general, in an attempt to have a deeper understanding of what it is all about: whether it is meaningful or meaningless, whether it is the truth or not the truth and whether it is real or just mere appearances. As such, it is that discipline which engages its subject-matter, whatever it may be, in whatever field of knowledge, or areas of existence, by being critical, analytical, logical, argumentative, reflective, rational and normative.

# Features of Philosophy and Science

- **Philosophy is Critical**
- This enables philosophy to avoid the mysterious, mystical, dogmatic.
- Philosophy engages science critical ensuring that claims are not accepted at the face value only
- Philosophy is interested in science to criticise and justifying the ground of knowledge claims

- **Philosophy is Sceptical**

- Philosophy is sceptical of knowledge claims in science

- Science relies heavily of sense experience and this is prone to error. Thus, we should be sceptical when claims are made because it might have been made in error and history abound to proof this.

- **Appearance and Reality Distinction**
- One distinction often drawn in philosophy is that of appearance and reality. Science relies heavily on the senses, but in so doing is it only the appearance of a thing science studies or the reality of it?



# Change and Science

- Claims in science are often temporary and can change
- Scientific research is ongoing always ensuring that today's claim may change radically leading to new laws,
- There is dislodging of old explanatory models through paradigm shift
- This is not only true of science but true of academic disciplines generally.
- What this implies is that all guides are tentative

# The Meeting Point between Science and Philosophy

- Philosophy and Science are not opposed to each other. Rather they complement each other
- 1. they both promote human welfare
- 2. they both aim at the improvement of the condition of human existence
- 3. they both have same origin of beginning in wonder

# Why is philosophy interested in science

- 1. to rein in the excesses of science?
- 2. to question the ultimate goal of science as to how realisable it is
- 3. To do an ethical appraisal of science

# ASSIGNMENT

- Do a three page review of Chapter One, *History and Philosophy of Science: A Brief Survey*.