

Course Outline: The Structure of Reality
Professor: William S. Hatcher

Preamble: A study of 'Abdu'l-Baha's *Tablet of the Universe* (provisionally translated into English but not yet published) confirms explicitly the conception of the structure of existence that can be inferred and deduced from a close reading of *Paris Talks, Some Answered Questions, and Promulgation of the Universal Peace*. In particular, this conception (1) validates the essentials of classical philosophy as developed by Plato, Aristotle, Avicenna, Descartes and Leibniz, (2) extends and develops the core conception of reality taught by the Founders of the revealed religions, (3) confirms, extends, and develops the best of what has been discovered by modern science, and (4) explicitly validates the mathematical methods and logical techniques of modern science.

Although it will take years, if not centuries, to understand the deeper aspects of 'Abdu'l-Baha's work, it is already possible to articulate a fairly detailed and coherent view of reality that flows from this work. Such an articulation is the purpose of this course.

Basic materials and texts: Richard Feynman, *Six Easy Pieces*, Persus Books, Cambridge, 1995; Roger Penrose, *The Large, the Small and the Human Mind*, Cambridge University Press, 1999; William Hatcher, *Minimalism*, Juxta Publishing, 2nd edition, 2004; 'Abdu'l-Baha, *Tablet of the Universe*, provisional translation, Haifa, 1995; William Hatcher, 'The Kitab-I-Aqdas, the Causality Principle in the World of Being', in *Law of Love Enshrined*, George Ronald, Oxford, 1996.

Pedagogical schema. It will be presumed that each student has access to the internet. The students will take turns presenting the various historical/scientific principles to the group. In each case, the professor will explain the fundamental concepts involved. Evaluation in the course will depend on degree and quality of participation.

Course Outline

- I. Levels of existence (ontological levels).
 - A. The spiritual world and the material world.
 1. The principle of existence in the spiritual world.
 - a. The soul and other spiritual entities exist as undivided wholes.
 2. The principle of existence in the material world.
 - a. Material entities are composites.
 3. Levels (degrees) of refinement within each realm of existence.
 - a. In the material world, the level of each entity is characterized by the nature and number of its elementary particles.
 - i. Examples from science and from 'Abdu'l-Baha.
 - b. Complexification, energy transformation, the two fundamental laws of thermodynamics, material vs. spiritual energy.
 - c. The four fundamental forces of physics and their respective roles in the hierarchy of material being.
 - d. Newton's laws and their implications. Principle of relativity (Galileo-Newton).
 - e. The Maxwell equations and their significance.
 - f. Wave-particle duality.
 - g. The Schrödinger equation and its significance.
 - h. Special relativity and the Lorenz transformation.
 - i. General relativity, the Einstein equations and their significance.
 - h. There is an infinity of levels in the material world, each more refined than the previous.
 - i. The higher (more refined) levels of material reality approximate (converge towards) spiritual reality. An examination of what this means for the relationship between the spiritual and the material worlds.
 - ii. Experiments at Princeton on highly unstable physical systems with unstable bifurcation points.
 - iii. Prayer.
 4. Levels in the spiritual world.
 - i. Only three ontological levels.
 - ii. An infinity of levels of degree (as in the material world).
 5. The relationship of higher to lower, universal to particular.
 - a. Plato's analogy of the divided line and its refinement by 'Abdu'l-Baha.
 - B. Singularity and multiplicity.
 1. The finite vs. the infinite.
 - a. The generation of the infinite from the finite. Indefinite iteration.
 - i. The alphabet, the colours, the genetic code.
 2. The Essence of God and the Primal Will are the only two absolutely unique entities in existence.
 3. Baha'u'llah's explanation of the way God creates.
 - a. Global and local regularity, dynamical systems.
 - i. Distributed vs. modular systems.

ii. Generating complexity from simplicity.

II. Causality, the relation of cause to effect.

A. Lawful relationships between phenomena.

1. Causality in the material world and the spiritual world.

a. Knowledge, prediction, and control.

i. Achieving autonomy and well-being.

B. Science and religion, the two sources of objective knowledge of the causality relationship.

1. Deduction (moving from general to particular) and induction (moving from particular to general).

a. Method in science and method in religion.

2. Bottom-up vs. top-down.

3. Minimalism and the parsimony principle.

4. Maximalism and the completeness principle.

III. Composition; the relation of part to whole.

A. Substances, entities, and phenomena (systems).

1. Material vs. spiritual, again.

B. Uniqueness, multiplicity, and the relationship to causality.

C. Proofs of the existence of God.

IV. Value, the relation of higher to lower.

A. Spiritual vs. material, yet again.

B. Abstract to concrete, general to particular, universal to local.

1. The universality of love.

C. Relationship to causality.

D. Relationship to composition.

E. The objective basis of the moral law.

1. The higher should never be sacrificed to the lower. One should always use the lower as a means to obtain the higher.

2. Love, power, and justice.

3. Ideology vs. authenticity.

a. The non-ideological nature of truth.

F. The achievement of authenticity, autonomy, and well-being.