

Hinduism and Natural Science: Scientific and Religious thinking of the Hindu tradition

Institution: University of Szeged, Faculty of Arts, Szeged, Hungary

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Course Description

1.) Science and Religion — a dialog and historical overview

The evaluation of reality in science and religion, their methods and characteristics, and the changes in the nature of their relationship to each other in the course of history. In the early stages of its development science was closely connected with religious thinking. We could even say that they together took up the task of observing and presenting the world in the most complete way possible. In later ages a new concept was emphasized, according to which science is exclusively privileged to observe reality in an authentic way. The close connection of science and religion ended in the age of enlightenment when they were already considered to apply contrary methods of observing the world. Religion and theological thinking were no longer entitled to dominate over society through their ways of evaluating reality.

Nowadays, at the end of the twentieth century and the dawn of the twenty-first century it can be experienced how both religion and science seek cooperation with each other. The first lecture aims at discussing this subject matter in detail. The discussion of the lectures coming later in the course will be based on the principles composed in this lecture. In the later phases of the course we will be discussing the doctrines and scientific dimensions of a culture, namely Hinduism, in which theological thinking and natural sciences have not been so sharply separated from one another in the course of history, and their relationship have not been drastically damaged even by the Western effect of the nineteenth and twentieth centuries. This subject matter will be specifically discussed in seminar 11.

The discussion of the main subject of the lecture will be based on the observations of Tertullian (160-220), Augustin (354-430), Grosseteste, R. (1168-1253), Bacon, R. (1214-1292), Magnus, A. (1193-1280), St. Thomas of Aquino (1225-1274), Ockham, W. (1285-1349), Bacon, F. (1561-1626), Descartes (1596-

1650) and others, and the birth of modern science will also be discussed. General principles will be presented according to the works of Peacocke, A., Barbour, I. and Brooke, J.H.

Featured text: Peacocke, A.: ; Theology for a Scientific Age Introduction (pgs. 1-23.) (2nd Ed.; Gifford Lectures). Fortress Press, Kent, England 1996.; Heszler, P.: Religion and Natural Science. Ch. 1,4 – Manuscript of the author for his prize-winning course supported by CTNS funded by the John Templeton Foundation at Jozsef Attila University (in Hungarian).

Recommended bibliography: Mircea Eliade: Histoire des croyances et des idées religieuses I-III. Éditions Payot, Paris, 1978, (Hungarian translation), 1997; Végh, László: Religion and Natural Sciences, lecture notes in Hungarian language, KLTE University of Debrecen. Debrecen, 1997.; Thomas Kuhn: The Structure of the Scientific Revolutions, (Hungarian translation), Budapest, 1984.; Heszler, P.: Religion and the Natural Science. – Manuscript of the author for his prize-winning course supported by CTNS funded by the John Templeton Foundation at Jozsef Attila University (in Hungarian).

In English: Brooke, J.H.: Science and Religion: Some Historical Perspectives. Cambridge Univ. Press, 1991.; Barbour, I.: Issues in Science and Religion. Prentice Hall and S.C.M. Press, 1966. Religion in an Age of Technology (Gifford Lectures II.) Harper and Row, 1992.; Peacocke, A.: The Sciences and Theology in the Twentieth Century. University of Notre Dame Press, 1981.; Theology for a Scientific Age (2nd Ed.; Gifford Lectures). Fortress Press, Kent, England 1996. Fuller, M.: Atoms and Icons – A discussion of the relationship between science and theology, Mowbray, 1955.

2.) A general introduction into Hinduism as a religion. Definitions of basic religious philosophical terms (the Absolute, the living being, material nature, fate and time).

Describing Hinduism as a religious and social system. The status of man (as the observer of the surrounding world) in society according to Hindu scriptures. The classification of society on the basis of the individual's qualities and his work in accordance with his qualifications. Social orders and spiritual classes in Hindu culture — different chances to acquire knowledge.

The basic religious philosophical notions of Hindu scriptures define each station of observing the whole of existence. Prakriti — material nature, the surrounding world. Jiva — the individual living entity. Karma — fate. Kala — eternal time. Isvara — God, the final controller. As the first steps of final observation and on the way to God, the observation of material nature or human surroundings are emphasized including its construction, functioning and laws. The contemplation on the situation of man and his role in the world is part of this knowledge.

Featured text: Mircea Eliade: *Histoire des croyances et des idées religieuses I*. Ch.8. pp.165-184; Toth-Soma, L.: *Veda-rahasya - the basic religious principles of Hinduism*. Ch.1. pp. 19-29

Recommended bibliography: Mircea Eliade: *Das Heilige und das Profane. Vom Wesen des Religiösen*, Rowohlt Taschenbuch Verlag Gmbh, Hamburg, (Hungarian translation), Budapest, 1957.; *Histoire des croyances et des idées religieuses I-III.*, Éditions Payot, Paris, 1978, (Hungarian translation), 1997.; Glassenapp, H.: *The Five World Religions*. — Gondolat Publisher (Hungarian translation), Budapest, 1977.; Toth-Soma, L.: *Veda-rahasya - the basic religious principals of Hinduism*. — Bába and Co, 1997.; *Hinduism*. — Bába and Co.,1998.; Coomarswamy, A.K.: *Hinduism and Buddhism* — (Hungarian translation) Budapest, 1989.;

In English: Chaudhuri, K.C.: *History of Ancient India*. Central Educational Enterprises, Calcutta, 1993.; Macnicol, N.: *The Living Religions of the Hindus*. New Delhi, 1964.; Natarajan, S.M.: “Vedic Society and Religion”, *An Outline of the Cultural History of India*, (ed). Syad Latif, Hyderabad, Institute of Indo-Middle East Cultural Studies, 1958.; Wheeler, M.: *Indus Civilisation*. Cambridge, 1953.; *Civilisations of the Indus Valley and Beyond*. London, 1966.

3.) The categories of and brief discussion on the scriptures of Hinduism with special emphasis on their themes and goals. Why do Hindu scriptures pay attention to the scientific observation of the existing world? The relationship between Man and Nature.

The scriptures of Hinduism are called Vedic Literature and are categorized on the basis of themes and functions. According to the Hindu concept, the existing world with its laws have been created by God, and as such it possesses a part of the qualities of its creator. As the creator is perfect, so does the surrounding world, nature exist as a perfect whole. The observation of nature, the discovery of its laws and functions are steps on the way to knowledge of God. Thus a vast part of the Vedic literature pays its attention mainly on this subject matter.

According to Hindu scriptures, man has to know nature at each level of its manifestation in order to live in the greatest harmony with it. Regarding the discovery of either macrocosm or microcosm, man should always consider his surrounding to be the universal body of God, and the knowledge of this universal body will lead him towards perfection.

Featured text: Toth-Soma, L.: *Veda-rahasya - the basic religious principals of Hinduism*. Ch.4. pp.50-74; *Book of Magic (Translation and commentaries of the Atharva-Veda)* Ch.1. pp. 11-15.

Recommended bibliography: Mircea Eliade: *Das Heilige und das Profane. Vom Wesen des Religiösen*, Rowohlt Taschenbuch Verlag GmbH, Hamburg, (Hungarian translation), Budapest, 1957.; *Histoire des croyances et des idées religieuses I-III.*, Éditions Payot, Paris, 1978, (Hungarian translation), 1997.; Sivarama, Swami: *The Bhaktivedanta Purports – Perfect Explanations of the Bhagavad-gita.* – Torchlight Publishing, California, 1998 (Hungarian translation); Glasenapp, H.: *The Five World Religions.* – Gondolat Publisher (Hungarian translation), Budapest, 1977.; Toth-Soma, L.: *Veda-rahasya - the basic religious principles of Hinduism.* – Bába and Co, 1997; *Book of Magic (Translation and commentaries of the Atharva-Veda)* – Bába and Co., 1998.; Hamvas, B.: *Scientia Sacra.* (In Hungarian) Magvető Press, Budapest, 1988.; Héjjas István: *Modern Science and the Wisdom of East.* Orient Press Kiadó, (Hungarian translation) Budapest 1990.;

In English: Basham, A.L.: *The Wonder that Was India.* Rupa & Co., Calcutta, 1967.; Apte, V.M.: *Social and Religious Life in the Grihya-sutras.* Bombay, 1954.; Bhattacarya, S.: *The Philosophy of Srimad-Bhagavata.* Visva-Bharati Research Publication, Calcutta, 1961.; Choudhury, P.: *Aryans I-IV.* Delhi, 1993.; Ganapati, S.V. (ed.): *Sama-veda.* Motilal Banarsidass, Delhi, 1982.; Keith, A.B.: *The Religion and Philosophy of the Veda and Upanishads.* M. 1-2. Cambridge, 1925.; Satsvarupa D. G.: *Readings in the Vedic Literature*, BBT, Los Angeles, 1990; *Elements of Vedic Thought and Culture.* BBT, Bombay, 1977.

4.) Processes of observation

The ten processes of observing reality described in the Vedas (pramanas) and the methods of modern scientific observation. Certain parts of the Hindu scriptures pay a special attention to the different processes of observation. These are collectively called pramanas. It is important to note that the scriptures emphasizing the path of divine observation are arsa (the statements of an authoritative sage, saintly person), upamana (comparison or one can identify something about which we have no prior knowledge of after it has been compared to a familiar object), artha-patti (presumption or one makes an assumption based on a fact that is otherwise inexplicable), abhava (perception of the object's absence), sambhava (inclusion, what is based on common experience that a larger quantity includes a smaller quantity), aitikya (tradition applied when some accepted fact is known by common belief or tradition but the original source of that knowledge is unknown) and cesta (gesture, to learn something from a knowledgeable person's gestures or from symbols) as well as perception of the senses (pratyaksa), deduction (anumana) and obtaining knowledge through hearing from a trustworthy person, who is an authority on the matter in question (sabda).

The Vedic methods of observation in accordance with the particular scientific goal harmonize with the methods of modern scientific observation and their use. Of course, beyond these similar processes for observing reality of Hindu religious texts and modern science, the Vedic scriptures give some other methods to know the transcendental realm of God, which is not the prior function of modern science.

Featured text: Bhaktivedanta Swami, A.C.: a.) Srimad-Bhagavatam. Canto.2. ch.1.

Recommended bibliography: Bhaktivedanta Swami, A..C.: a.) Srimad-Bhagavatam. (translation and commentary) Bhaktivedanta Book Trust (Hungarian translation), London 1994; Sivarama, Swami: The Bhaktivedanta Purports – Perfect Explanations of te Bhagavad-gita. – Torchlight Publishing, California, 1998 (Hungarian translation); Toth-Soma, L.: a.) Veda-rahasya - the basic religious principals of Hinduism. – Bába and Co, 1997; Héjjas István: Modern Science and the Wisdom of East. Orient Press Kiadó, (Hungarian translation) Budapest 1990;

In English: Colebrook, H.T.: Sankhya Karika of Isvarakrishna. Oxford, 1837.; Peacocke, A.: Creation and the World of Science. Clarendon Press and Oxford University Press, 1979; Radhakishnan, S.: a.) Eastern Religions and Eastern Thought. London, 1950; Ghate, V.S.: The Vedanta. A Study of the Brahma-sutras with the Bhasyas of Sankara, Ramanuja, Nimbarka, Madhva and Vallabha. Poona, 1926; Müller, M.: The Six Systems of Indian Philosophy. Longmans, Green and Co., 1899.

5.) The Vedic and modern scientific approaches of the theory of creation.

Discussing the essential points of the Vedic theory of creation and the creation of the elements of material nature. Sarga — the disintegration of the original balance of material nature and the genesis of universes. Visarga — creation within the universe. The basic principles of the Vedic calculation of time. The great periods of existence (Satya-yuga, Treta-yuga, Dvapara-yuga and Kali-yuga) and the notion of cyclic time. The “Big-bang” and the Hindu theory of creation. The structure of the universe, the orbit of the planets, their circulation time and the distance between them according to Vedic descriptions (Surya-siddhanta) and modern science. Amazing parallels and some important differences between the two approaches.

Featured text: Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. Ch. 7. Pps. 105-116. Atkins P. W.: Creation, Ch3-4.

Recommended bibliography: Atkins P. W.: Creation, W. H. Freeman and Company Limited, Oxford, (Hungarian Translation), Budapest, 1982.; Bhaktivedanta Swami, A..C.: a.) Srimad-Bhagavatam. (translation and commentary) Bhaktivedanta Book Trust (Hungarian translation), London 1994; Bhagavad-Gita — Bhaktivedanta Book Trust (Hungarian translation), London 1994; Dawkins Richard: River Out of Eden, Basic Books, Inc., (Hungarian translation), Budapest, 1995; Frye, R.: Is God a Creationist? The Religious Case Against Creation Science. Scribner, 1983 (Hungarian Translation). Héjjas István: The modern science and the wisdom of East. Orient Press Kiadó, (Hungarian translation) Budapest 1990; John D. Barrow: The Origin of the Universe, Basic Books, Inc., (Hungarian translation), Budapest, 1994.; Steven Weinberg: The First Three Minutes, Basic Books, Inc., (Hungarian translation),

Budapest, 1977; Paul Davies: The Last Three Minutes, Basic Books, Inc., (Hungarian translation), Budapest, 1994; Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. – Bába and Co, 1997; Végh, László: Religion and Natural Sciences, lecture notes in Hungarian language, KLTE University of Debrecen. Debrecen, 1997.;

In English: Brown, W.N.: Theories of Creation in the Rg-veda. Journal of the American Oriental Society, 1965.; Kirfel, W.: Die Kosmographie der Inder. Bonn - Leipzig, 1920.; Kosambhi, D.D.: Myth and Reality. Bombay, 1962.; Mukherjee, K.N.: Elements of Natural Science in Rig-veda. Indian Journal of Landscape systems, Vol.18, No.1. Calcutta, 1995.; North, J.D.: Chronology and the Age of the World. In: Cosmology, History and Theology. (ed): W. Yourgrau and A.D. Breck; New York, Plenum Press, 1977. 316-317.; Peacocke, A.: Creation and the World of Science. Clarendon Press and Oxford University Press, 1979.;

6.) Creation and biological evolution.

The theory of the genesis of the living entities in Hinduism and in the modern scientific theory of evolution. Vertical and horizontal evolution of the living entities in Hinduism. The evolution of the soul and the doctrine of reincarnation (vertical evolution), the densification theory of human evolution (horizontal evolution). The evolution of material bodies according to the scriptures of Hinduism (Bhagavata Purana). Possible parallels between modern scientific and the Hindu religious conceptions. Life on other planets?

Featured text: Bhaktivedanta Swami, A..C.: a.) Srimad-Bhagavatam. Canto 9. Ch 3.; Storch, Volker: Evolution ch.4.

Recommended bibliography: Bhaktivedanta Swami, A..C.: a.) Srimad-Bhagavatam. (translation and commentary) Bhaktivedanta Book Trust (Hungarian translation), London 1994.; Bhagavad-Gita — Bhaktivedanta Book Trust (Hungarian translation), London 1994.; Gitt, W.: Creation+Evolution= ?. — Primo Publisher, (Hungarian translation) Budapest, 1991.; Frye, R.: Is God a Creationist? The Religious Case Against Creation Science. Scribner, 1983 (Hungarian Translation) Héjjas István: Modern Science and the Wisdom of East. Orient Press Kiadó, (Hungarian translation) Budapest 1990.; Leakey Richard: The Origin of Humankind, Basic Books, Inc., (Hungarian translation), Budapest, 1995. Paul Davies: The Mind of God, Simon & Schuster Inc., (Hungarian Translation), Budapest, 1992.; Storch, Volker: Evolution : The results and problems in the Science of Genealogy — (Hungarian translation), Budapest, 1995.; Végh, Laszlo: Religion and Natural Sciences, lecture notes in Hungarian language, KLTE University of Debrecen. Debrecen, 1997.;

In English: Brown, W.N.: Theories of Creation in the Rg-veda. Journal of the American Oriental Society, 1965.; Peacocke, A.: Creation and the World of Science. Clarendon Press and Oxford University Press, 1979.; Verna, O.P.: Densification Theory of Human Evolution.— India, 1995.;

7.) The Vedic theory of the atom and its theological and modern scientific significance.

Detailed description of the genesis of atoms and elements on the basis of the Hindu conception. Subtle metaphysical elements (mind, intelligence and ego) and gross metaphysical elements (earth, water, fire, air and ether) as the constructing elements of the existing world and their molecular organisation in the Vedas and in modern science. Relationship between the param-anu of Vedic science and the atom of modern science including its minute parts (hadrons — protons, neutrons and hyperons, and leptons — electrons, myons and neutrinos). Common motives in the Vedic and in the modern scientific conceptions. Optical and colloid chemical laws. The example of perceiving colloid-size molecule complexes in light (Tyndall effect and Raleigh scattering) in Hindu scriptures. The calculation of time on the basis of the atom. Absolute and relative time.

Featured text: Bhaktivedanta Swami, A.C.: a.) Srimad-Bhagavatam. Canto 3. Ch.21.; Csák, Cs.: Sankhya - Elements of the Universe ch.4-7.

Recommended bibliography: Bhaktivedanta Swami, A.C.: a.) Srimad-Bhagavatam. (translation and commentary) Bhaktivedanta Book Trust (Hungarian translation), London 1994.; Bhagavad-Gita — Bhaktivedanta Book Trust (Hungarian translation), London 1994.; Csák, Cs.: Sankhya - Elements of the Universe — (Hungarian translation) Debrecen, 1997.; Szántó Ferenc: Basic Principles of Colloid Science (In Hungarian). — JATE University Press, Szeged, 1995.; Steven Weinberg: The First Three Minutes, Basic Books, Inc., (Hungarian translation), Budapest, 1977.; Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. (In Hungarian) — Bába and Co, 1997.; Csanyi, L.: General Chemistry. — Szeged, University Press, 1999.; Teingl-Takacs, L. (ed): Upanisads. — Budapest, 1997.;

In English: Ramakrishna Rao, K.B.: The Gunas of Prakrti according to the Sankhya Philosophy. Philosophy East and West. XIII No. 1, pp. 61-67, 1963. Bloomfield, M.: The Religion of the Veda. New York-London, 1908

8.) The subtle world and its constructing elements in the Vedic scriptures. The relationship between mind, intelligence and soul in Hinduism and modern science.

The subtle world and its constructing elements (mind, intelligence and ego) in the Vedic scriptures. The relationship between mind, intelligence, consciousness and soul. The changes of the human psyche

according to the Vedic theory of the modes of nature. The “real” ego and the “false” ego. The effects of the modes of “goodness” (sattva), “passion” (raja) and “ignorance” (tama) on human behaviour, on the evaluation of one’s surroundings and on one’s concept of reality. Categories of psychological ontogenesis in Vedic literature and in modern psychology. Platforms of consciousness described in Hindu scriptures, namely the platform of physical existence (annamaya), the platform of action (pranamaya), the platform of improved thinking (jnana-maya), the platform of understanding the existence of the transcendence (vijñana-maya), and the platform of the pure perception of reality (ananda-maya).

Featured text: Bhaktivedanta Swami, A.C.: a.) Bhagavad-Gita Ch.7, 14. Mircea Eliade: Yoga. Ch. 2. 69-75.

Recommended bibliography: Bhaktivedanta Swami, A.C.: a.) Srimad-Bhagavatam. (translation and commentary) Bhaktivedanta Book Trust (Hungarian translation), London 1994.; Bhagavad-Gita — Bhaktivedanta Book Trust (Hungarian translation), London 1994.; Csák, Cs.: Sankhya - Elements of the Universe — (Hungarian translation) Debrecen, 1997.; Mircea Eliade: Yoga — (Hungarian translation), Budapest, 1994.; Kardos, L.: From Perception to Activity – lectures on general psychology. — Textbook Publishing Comp., (In Hungarian) Budapest, 1987.;

In English: Ramakrishna Rao, K.B.: The Gunas of Prakṛti according to the Sankhya Philosophy. Philosophy East and West. XIII No. 1, pp. 61-67, 1963.; Chatterjee, S and Datta, D.: An Introduction to Indian Philosophy. Calcutta University Press. Calcutta, 1984.; Iyengar, B.K.S.: Light on Yoga. Unwin Publishers Ltd., 1976.; Radhakishnan, S.: a.) Eastern Religions and Eastern Thought. London, 1950.

9.) The philosophical schools of global observation based on Hindu scriptures (astika) I. Natural scientific methods of understanding material reality in Hinduism.

The teachings of the Nyaya, Vaisheshika and Sankhya schools and their connections with natural science. The system of Nyaya and the rules of philosophical argumentation, the limits of perception and deduction. The importance of authentic knowledge and critical studying. Natural scientific concept and the approach of the Nyaya philosophy. Vaisheshika philosophy and the observation of the perceptible and imperceptible world. The atom as an eternal principle, the smallest element of the existing world. On the border between theism and materialism? Parallels between Vaisheshika philosophy and modern natural scientific concept. Sankhya – The simultaneous acceptance of the analytical study of material nature and an existing transcendence in Hinduism. The two theories of the development of material nature and its regular processes: 1) satkarma-vada and 2) asatkarma-vada. Satkarma-vada and sankhya-philosophy. Is the material world reality or just an illusion? Pros and cons.

Featured text: Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. Ch. 5. Pp.77-86.

Recommended bibliography: Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. – Bába and Co, 1997.; Héjjas, I.: The Ancient Wisdom of India. — Orient Press , Budapest 1994.; Teingl-Takács,L. (ed): Upanisads. — Budapest, 1997.;

In English: Dasgupta, S.: History of Indian Philosophy (I-V.). Cambridge, 1922 - 55.; Müller, M.: The Six Systems of Indian Philosophy. Longmans, Green and Co., 1899.; Colebrook, H.T.: Sankhya Karika of Isvarakrishna. Oxford, 1837.; Ramakrishna Rao, K.B.: The Gunas of Prakrti according to the Sankhya Philosophy. Philosophy East and West. XIII No. 1, pp. 61-67, 1963.

10.) The philosophical schools of global observation based on Hindu scriptures (astika) II. Theological methods of understanding the transcendental reality of Hinduism.

The teachings of the Yoga, Mimamsa and the Vedanta schools and their connections with natural science. A higher observation of the “I” and the surroundings. Paraphenomena and their Vedic understanding — the subtle reality. A study of the laws of material nature. The description of the functioning of material nature and divine arrangement behind it — the Hindu theological approach of the problem. These philosophical schools in their teachings refer to the fact that the observation of the world only on the material basis is a just a part of the truth. By their attitudes they encourage one to learn to see the divine arrangement behind the different phenomena within this material nature. For the attainment of the goal yoga offers a mechanical practical-meditative method, mimamsa offers a fundamental approach, and vedanta offers the final conclusion.

Featured text: Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. Ch. 5. pp.87-95.

Recommended bibliography: Csák, Cs.: Sankhya - Elements of the Universe — (Hungarian translation) Debrecen, 1997.; Mircea Eliade: Yoga — (Hungarian translation), Budapest, 1994.; Toth-Soma, L.: a.) Veda-rahasya - the basic religious principles of Hinduism. – Bába and Co, 1997.; Héjjas, I.: The Ancient Wisdom of India. — Orient Press, Budapest 1994.; Teingl-Takacs, L. (ed): Upanisads. — Budapest, 1997.;

In English: Dasgupta, S.: History of Indian Philosophy (I-V.). Cambridge, 1922 - 55.; Bloomfield, M.: The Religion of the Veda. New York-London, 1908.; Müller, M.: The Six Systems of Indian Philosophy. Longmans, Green and Co., 1899.; Ramakrishna Rao, K.B.: The Gunas of Prakrti according to the Sankhya Philosophy. Philosophy East and West. XIII No. 1, pp. 61-67, 1963.; Chatterjee, S and Datta, D.: An

Introduction to Indian Philosophy. Calcutta University Press. Calcutta, 1984.; Iyengar, B.K.S.: Light on Yoga. Unwin Publishers Ltd., 1976.; Radhakishnan, S.: a.) Eastern Religions and Eastern Thought. London, 1950.; Colebrook, H.T.: Sankhya Karika of Isvarakrishna. Oxford, 1837.; Vivekananda, S.: Raja Yoga. Rascher Verlag, Zürich 1941.; Prajnan Yati, B.: Twelve Essential Upanishads I-IV. (Isha, Kena, Katha, Prashna, Mundaka, Mandukya, Taittiriya, Aitareya, Chandogya, Brihadaranyaka, Svetasvatara and Gopalatapani Upanishads) — Sri Gaudiya Matha, Madras, 1983.; Sankaracarya: Sariraka-bhasya. (Commentary on Brahma-sutra of Krsna-dvaipayana Vyasa) English transl. George Thibaut, Bombay, 1960.; Vallabhacarya: Anu-bhasya. (Commentary on Brahma-sutra of Krsna-dvaipayana Vyasa) Vol. XV, Bombay, 1938.; Vidyabhusana, Baladeva: Govinda-bhasya (Commentary on Brahma- sutra of Krsna-dvaipayana Vyasa) Allahabad, 1934.;

11.) Religion and natural science. The limit of human observation and the resolution of contradictions.

Divine control or laws of nature? The viewpoints are approaching. Motto: "Only the ignorant speak of devotional service of God as being different from the analytical study of the material world. Those who are actually learned say that he who applies himself well to one of those paths achieves the results of both." (Bhagavad-Gita 5.4)

To understand the whole of existence in a complex way, one needs to have a broadly open-minded vision and attitude including the approaches of both science and religion, which are different by their natures but are also complementary to each other to the greatest extent.

Featured text: Toth-Soma, L.: Hinduism. Ch.3. pp.67-74.; Héjjas István: a.) Modern Science and the Wisdom of East. Ch.3.

Recommended bibliography: Mircea Eliade: a.) Das Heilige und das Profane. Vom Wesen des Religiösen, Rowohlt Taschenbuch Verlag GmbH, Hamburg, (Hungarian translation), Budapest, 1957.; Toth-Soma, L.: Hinduism., Bába and Co., Szeged, 1998.; Thomas Kuhn: The Structure of the Scientific Revolutions, (Hungarian translation), Budapest, 1984.; Végh, Laszló: Religion and Natural Sciences, lecture notes in Hungarian language, KLTE University of Debrecen. Debrecen, 1997.; Héjjas István: a.) Modern Science and the Wisdom of East. Orient Press Kiadó, (Hungarian translation) Budapest 1990.;

In English: North, J.D.: Chronology and the Age of the World. In: Cosmology, History and Theology. (ed): W. Yourgrau és A.D. Breck; New York, Plenum Press, 1977. 316-317.; Pillai, G.G.: Hindu gods and hidden mysteries. Allahabad, 1958.; Zimmer, H.: Maya, der indische Mythos. Stuttgart, 1952.; Kosambhi, D.D.: Myth and Reality. Bombay, 1962.

12) Summary

A review of the main points of the course, and discussion of ethical questions.

Featured text: Küng, H.: Weltethos ch.1-5.

Recommended bibliography: Mircea Eliade: a.) Das Heilige und das Profane. Vom Wesen des Religiösen, Rowohlt Taschenbuch Verlag GmbH, Hamburg, (Hungarian translation), Budapest, 1957.; Kuhn Thomas: The Structure of the Scientific Revolutions, — (Hungarian translation), Budapest, 1984.; Küng, H.: Weltethos — Egyházfórum (Hungarian translation), Budapest, 1997.;

In English: Hopkins, E.W.: Religions of India. Boston 1985.; Reprinted in New Delhi, 1972. Ethics of India. Yale University Press, New Haven 1924.; Ramakrishna, G.: The Concept of Rita and the Ethical Element in Vedic literature. Vedanta kesari LIV. Calcutta,1967.; Barbour, I.: Ethics in an Age of Technology (Gifford Lectures II.) Harper and Row, 1992.

II.f Interactive elaboration of subject matters

The last thirty minutes of the lectures is spent with the elaborate analysis of a scriptural excerpt read by the students before the lecture enabling themselves to understand the theme of the lecture properly. This makes it essentially easier for the students to acquire the subject matter and the concept.

II.g Evaluation

Students may choose whether they give an oral presentation of the acquired materials or write a test or an essay on them at the end of the course. In both cases they are given evaluation marks.

The evaluation mark will be necessary for getting MA degree in the major of Religious Studies.

II. Reading list

The main list is selected in such a way that the books can easily be found in Hungarian language (1-26). Strongly recommended books for discussions: 1, 9a, 12, 14, 22, 25a, 26.

There are some offered readings in English, from which important pages will be given to the students in photo copies and/or some of them translated into Hungarian. (These important materials are available in the personal library of the course's director, and to make xerox copies is possible at the office of the department.)

Atkins P. W.: Creation. — W. H. Freeman and Company Limited, Oxford, (Hungarian Translation), Budapest, 1982.

Bhaktivedanta Swami, A..C.: a.) Srimad-Bhagavatam. (translation and commentary) — Bhaktivedanta Book Trust (Hungarian translation), London 1994.

b.) Bhagavad-Gita — Bhaktivedanta Book Trust (Hungarian translation), London 1994.

Barrow, J. D.: The Origin of the Universe. — Basic Books, Inc., (Hungarian translation), Budapest, 1994.

Coomarswamy, A.K.: Hinduism and Buddhism — (Hungarian translation) Budapest, 1989.

Csanyi, L.: General Chemistry. — Szeged, University Press, 1999.

Csák, Cs.: Sankhya - Elements of the Universe — (Hungarian translation) Debrecen, 1997.

Davies, Paul: a.) The Last Three Minutes. — Basic Books, Inc., (Hungarian translation), Budapest, 1994.

b.) The Mind of God — Simon & Schuster Inc., (Hungarian Translation), Budapest, 1992.

Dawkins Richard: River Out of Eden. — Basic Books, Inc., (Hungarian translation), Budapest, 1995.

Eliade, Mircea: a.) Das Heilige und das Profane. — Vom Wesen des Religiösen, Rowohlt Taschenbuch Verlag GmbH, Hamburg, (Hungarian translation), Budapest, 1957.

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c.) Yoga — Európa Publisher (Hungarian translation), Budapest, 1994

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