The course will be given as a four credit basic course for the second and third year graduate students of the department of philosophy and religion of Little Flower Seminary and as an elective course to the guest students of the Institute of Science and Religion at Little Flower Seminary. The Course is an attempt at an Eastern Religious appropriation of the major insights of the modern western science in its wide-ranging fields. The course draws the data from an interdisciplinary dialogue between science and religion to re-conceive God, world and the Human in a manner fitting to the modern intellectual scientific culture in general and to the philosophical and religious context of India in particular. Hence the course unfolds itself at three levels. 1. Describing the intellectual setting of the intersection of science and mysticism 2. Critical inter-sectioning of the scientific and mystical worldviews from the perspective of the Kosmos, Bios and Nous. 3. Articulating the metaphysical, anthropological and theological implications of the inter-sectioning of science and mysticism. While Eastern religious approach is dominant in the course, the course presupposes the Christian perspectives on the ongoing debate and deal at some length with the same where and when necessary.

Concise Outline of the Course

Week 1 Introduction

Weeks 2-3 Part I

Intellectual Setting of the Inter-sectioning of Science and the Eastern Religions

Weeks 4-8 Part II

Intersecting Modern Scientific and Eastern Mystical Worldviews

Week 4-5 Science, Religion and the Kosmos

Week 6-7 Science, Religion and the Bios

Week 8 Science, Religion and the Nous
1. Over-all Structure and vision of the course.

2. Defining the Disciplines of Science and Religion, the Eastern religions.

3. Brief Historical sketch of the science-religion interaction in the West.

4. Models of Interaction between science and religion (Ian G. Barbour’s and Philip Hefner’s Approaches)

5. Science and religion in the Indian context (nature of their relationship; the methodological and hermeneutical pre-cautions needed for such an interdisciplinary setting.)

Required Readings:


Group / Class Activities:

1. Discussion: How far true is the warfare attitude between science and religion from 16th to the 19th century?

2. Why in India is there no significant conflict between science and religion despite the strong scientific and religious background of India?

Week 2-3 Part I

Intellectual Setting of the Inter-sectioning of Science and Eastern Religions

Week-2

Outline of Lectures

1. The Epistemological Setting: The emerging epistemological context of the proximity between reason and intuition. The shift from Logical to historical perspectives; major conclusions of scientific knowledge drawn from philosophy of science. The central tenets of Eastern mystical epistemology which brings it closer to the recent paradigm shifts in the self-understanding of modern science.

2. The commonality of the sense of awe and wonder in science and mystical tradition as a general philosophical setting for the intersectioning of the two.

3. The cultural setting: Shows how postmodern culture has come to acknowledge the inevitability of the interaction between the two. A cultural analysis shows that there is a tension within our culture due to our failure to think both scientifically and religiously.

Required Readings:


Groups / Class Activities

1. Discussion: How does the Indian cultural context necessitate the intersecting of science and religion?

2. Review of the Web Resources in the computer lab in groups of 3 on select topics dealing with science and religion in general.

Week 3

Outline of Lectures

1. The ecological setting: The intersection of the basic tenets of the worldviews of the new physics and eastern mysticism can very much enhance an ecological worldview.

2. The Interdisciplinary Setting: The modern quest for truth shows an unprecedented level of systematic interdisciplinary attention. Science and Religion are two major components of the same. Whitehead’s bold statement that the future of the humanity depends on the relations between the two.

3. The Theological Setting: Contemporary theology witnesses a methodological shift from exegetical to hermeneutical and a renewed understanding of revelation from static to dynamic. The emerging theological paradigms necessitated by the scientific discoveries have very much to borrow from the eastern mystical philosophies of Hinduism, Buddhism, Taoism, etc.

4. A critical glance at the attempts made so far by the contemporary science-mysticism writers like Fritjof Capra, Gary Zukav, etc. with a view to identify the actual areas of consonance and dissonance.
Required Readings:


Group / Class Works:

1. Discussion: 1. Can the overall Eastern conceptual scenario provide a more conducive platform for a constructive interaction between science and religion?

2. Students should give a 3 page assignment, after assessing and discussing in small groups of 6, stating how the first part of the course can be promoting the central perspectives of the course as outlined in the Introduction.

Weeks 4-8

Part II: Intersectioning Science and Eastern Religions

Weeks 4-5: Science, Religion and the Kosmos

Week 4

Outline of Lectures
The understanding of cosmic unity in quantum physics based on the problem of phase entanglement, the act of observation, etc.

1. The dynamic worldview of physics based on the understanding of matter, space, time etc. in relativity theory and quantum physics.

2. The idea of interpenetration as proposed by the bootstrap hypothesis of Geoffrey Chew.

3. An Introduction to the Chaos Theory and its implications for the cosmic interconnectedness.

Required Readings


Group / Class Activities:

1. Discussion: Highlight and the major cosmological transitions from the classical physics of the new physics.

2. Video show of the documentary films by Carl Sagan, Cosmos I & II.

Week 5

Outline of Lectures

1. The Non-local vision of reality expounded by J S Bell as opposed to the deterministic vision of Einstein, Podolsky and Rosen.

2. The Hindu view of the cosmic unity based on the cosmogonic myths in the Vedas; the Upanishadic vision of the underlying unity of the cosmos, the metaphor of the cosmic dance of the Lord as resembled in the Nataraja image of Shiva of the Saivist sect of Hinduism, etc.
3. The oscillating model of the universe in Big Bang theory and the Cyclic view of creation, maintenance and destruction in Bhagavatgita 9:7-10.

Required Readings:


3. Rgveda, x. 90, 128, 10.

Group / Class Activities:

1. How do the cosmological parallels between the scientific and mystical account of the cosmos point to the unity of knowledge?

2. Attempt a scientifically suited reinterpretation of the symbolism of the Nataraja image of Siva, after a meditative reflection and discussion sitting in front of the sculptor of the Lord.

3. A field trip to the Advaithashram in Kalady, the birth place of Sree Sankara, the exponent of the pure monism (advaita) of Hinduism. This is an internationally known pilgrim center. Students will examine several Hindu metaphors and images representing the unified, dynamic and oscillating models of the universe. There will also be an interactive session with the resident students there and our students.

Week 6-7 Science, Religion and the Bios

Week 6
Outline of Lectures

(Guest Lecturer Dr. Kuruvilla Pandiakattu, CTNS-SRCP award winner from Jnana-Deepa Vidyapeeth, Pune, being also a regular visiting staff of the seminary, will give part of the lectures in week 6 and 7 on the theory of evolution and the developments in genetics.)

1. An Introduction to the theory of evolution and the mechanism of Natural selection. The evolutionary origin of life, the human evolution and psycho-social evolution.

2. Revisiting creationism, evolution and eschatology.

3. An eastern religious appropriation of the theory of evolution. The evolutionary vision of reality in Taoism, centering the reflections around the principle of Li (principle of organization) and the dialectical interplay between the polar opposites of Yin and Yang.

4. The evolutionary outlook towards world and human in ancient modern Hindu Philosophy and religion. Jiva and ajiva categories in Jainism. Modern Indian Philosopher Sri. Aurobindo Ghosh’s doctrine of the spiritual evolution and the continuity of being from matter through the biological world to the Gnostic beings – the human.

5. A critical glance at the substantive and epistemic differences between the scientific and religious vision of evolution and the analogical complementarity between the two.

Required Readings:


Group / Class Activities

1. Discussion: Is there an ontological commonality between the scientific evolution and the spiritual evolution represented in the East and what are its actual implications?


3. Web-site review of counterbalance and meta-library in the computer lab.

Week 7

Outline of Lectures

1. The Neo-Darwinist syntheses and a brief historical review of the developments of modern genetics and genetic researches.

2. An Introduction to the issues of cloning and its metaphysical underpinnings for a cosmic vision of reality; the human genome project with a philosophical exploration of its relevance and implications for a renewed holistic understanding of the humans and the infra-human realities, underscoring the metaphysical proximity, continuity and interconnectedness of reality.

3. The Hua-Yen school of Japanese Buddhism emphasizing the absolute unity of the human and the world. The Jaina vision of the human personhood and the “non-corporeality” envisaging the metaphysical oneness of reality.

4. The inter-sectioning of the Eastern religions and the Western sciences from biological perspectives is only analogical and the actual implications of this complementarity are more ontological than biological.

Required Readings:
Group / Class Activities:


2. Field Study - Each student has to interview at least 25 ordinary people and collect their impressions and opinions on cloning, human genome project, etc. The outcome of this field study is to be presented in groups of 10 each. Each group has to present the report before the entire class.

3. Discussion: What are the philosophical and religious pre-suppositions behind the opinions expressed by the people and how does it betray the popular impression about science and religion. Do the data point to the need for alternate worldviews?

4. A 3 page assignment prepared by each student after discussing in groups of seven identifying the areas of consonance and dissonance between science and the Eastern Religions in their perception.

Week 8 Science, Religion and the Nous

Outline of Lectures

1. Brief review of the recent developments in neural sciences with special emphasis on the mind-brain problem and the problem of consciousness and varying responses to it.

2. Implicit theological questions in neural sciences especially the question of personhood and self.
3. The fundamental spiritual and conscious stuff of the universe as envisioned in the Vedas and Upanishads of the Hindus. The de-materialisation of the stuff of the Cosmos through the concept of the Conscious Purusa (person) in the Vedas, which are pregnant with rich conceptual resources for a renewed understanding of the human from the perspectives of body and soul.

Required Readings:


Class / Group Activities

1. Discussion: How do you appropriate the various accounts of religious experience in the particular Indian context within the light of the developments in neural sciences?

2. Computer Lab exercise: Nancy Murphy’s talk on personhood in CTNS’ CD Metalibrary- Interactive resources in science and religion.

3. Review of the Web resources of CTNS and counterbalance on the related topics.

Part III

Weeks 9-10, Towards an Integral Vision of Reality

Week 9

Outline of Lectures
1. Introduction: What are the wider philosophical assumptions behind the shared viewpoints of science and mysticism? How to use the scientific and religious data for re-conceiving the Reality in terms of God, human and the world?

2. Metaphysical implications: Reality as synthesis- Exploring the fuller nuances of Paul Davies’s assertions that “the world around us is the manifestation of something very, very clever indeed”; Further Scientific explorations include the implications and philosophical assumptions of the Grand Unified Theories, David Bohm’s concept of the Implicate Order, etc. - “The search for the real music of the universe... unity of unity and diversity or the wholeness of the part and the whole.” (David Bohm)

3. The pure monistic vision of Sri Sankara, the world as the abode of the absolute and the pan-en-theistic vision of Isavasya Upanishad and Bhagavat Gita. The doctrine of Eka-nishtata (one-centredness) of the Hindu philosophy as advocated by Brahmabandhab Upadhyay.

Required Readings:


Class / Group Activities

1. Discussion: In the light of our discussion on the said topic, give your critical reflections on Fritjof Capra’s remarks that “the Brahman of the Hindus, like the Dharmakaya of the Buddhists and the Tao of the Taoists, can be seen, perhaps, as the unified field from which spring not only the phenomena studied in physics, but all other phenomena as well.”

Week 10

Outline of Lectures
1. Anthropological implications: Human existence as a universal presence and participation in the cosmic oneness of being. Scientific foundations of this claim are the perspectives of Ilya Prigogine, Ken Wilber, the Consciousness created Reality school of quantum mechanics and the cosmic anthropic principle.

2. The three stages of consciousness described in Brahadaranyaka Upanishad. The Upanishadic identification of the individual self with the Universal self (Atman-Brahman).


4. The Praxis of the new integral vision of Reality defined in terms of the metaphors of Bhagavatgita, viz., Lokasamgraha (Welfare of All) and Sarva-bhuta-hite-ratah (ecstatic joy at the enhanced goodness of each being). Recapitulation of the perspectives and conclusion.

Required Readings


4. Somaraj Gupta “The Word that became the Absolute – Reflections on AUM.”

Class / Group Activities
A series of Meditative exercises on the various stages on the sacred mantra (aphorism) Aum and the various stages of the consciousness envisioned in the Yoga system of Indian philosophy for giving an experiential touch to the whole program, enabling students to view reality as a cosmic harmony in which we are partakers, on a conviction of the hermeneutical principle that understanding is knowing plus living.

Requirements and Grading Criteria

1. Regular and active attendance in the classes, discussion forums, lab exercises and all class activities is a must. Anyone who misses any session for a valid reason should do an assignment to make up for it.

2. Class Participation and Discussion Performance 10%
3. Two Individual Assignments 20%
4. Mid-term Examination 20%
5. Final Paper 20%
6. Final Examination 30%

Performance of each student in discussions, presentations and reviews will be individually assessed along with the overall performance of each group. Individual assignments refer to the requirements mentioned in the class activities of Week 3 and Week 7. Mid-term examination covers all the portions covered from weeks 1-5. Each student has to prepare a paper of 2000 words on a topic of their choice fitting to the general perspectives of the course. The paper should show the nature of serious academic research and the personal vision of the student on the relationship between science and religion should form part of the paper. The final examination includes all the topics covered in Weeks 6-10.

Due Dates

1. Individual Assignment I September 28, 2002
2. Mid-term Examination October 12, 2002
3. Individual Assignment II October 26, 2002
5. Final Examination November 30, 2002

Other Available References Recommended
Part I


Part II


Chinmaynanda, Swm (tr.). [1962], Taittirya Upaniad, Madras: Chinmaya Publication Trust.
Eva Wong, Taoism- A Complete introduction to the history, philosophy, and practice of an ancient Chinese spiritual tradition, Shabhala, Boston, 1997


Radhakrishnan, S. Indian Philosophy, 2 Vols., London: George Allen and Unwin Ltd., 1940

Sharma, D. S. (tr.) The Upanishads an Anthology, Bombay: Bharatiya Vidya Bhavan, 1970


Sri Ramakrishna Math., The Bhadarayaka Upanishad, 1968


Part III


