



COLLEGE OF LIBERAL ARTS & SCIENCES PROPOSAL FOR AN INTERDISCIPLINARY SIGNATURE AREA IN SCIENCE AND SPIRITUALITY

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Introduction

We propose that the theme of Science and Spirituality be developed as an Interdisciplinary Signature Area. Such a program would provide a focus on some of the most significant issues in contemporary life, toward which students must be sensitive in order to act responsibly in today's complex world. Across a range of areas, issues in the sciences on the one hand, and religion/spirituality on the other, have positioned themselves front and center in the demand for serious attention. On the science side, important shifts are at work in the area of scientific theory, while technology continues to play a central role in the sustainability issue in the environment, and in a host of ethical dilemmas in the field of health science. On the religion/spirituality side, one need only consider the kind of flashpoint religion has become across a range of issues in society to appreciate the importance of building a strong program in the subject at UCDHSC. The need is more crucial than ever to educate students carefully, thoroughly and critically, to understand the complexity of these issues, and to make meaningful, well-informed choices. We envision this Science and Spirituality Signature Area (SSSA) not as a major in a specific discipline, but as an interdisciplinary area concentration offered at the undergraduate and graduate (4/5000) levels, which would function to bring a coherent focus to the student's course of study. Courses taken in the program could be applied toward the student's major. We imagine a component of the program offered at HSC's Schools of Medicine, Nursing, Pharmacy, and possibly Dentistry, to students who are entering clinical health sciences, especially to those who are developing their expertise in Holistic, Complementary and Alternative Medicine, and those who are developing sensitivity to spiritual issues in care-giving. These health science students need a grounding in the religious/spiritual and philosophical underpinnings of the healing systems they are studying.

The fundamentals

The core mission of the SSSA is to impart a deeper, more nuanced and interdisciplinary understanding of the complex phenomenon of human spirituality and its applied relationship to science, health, contemporary society and the environment. "Science" is understood here both in the sense of a methodology for analyzing data through empirical means, and in the broader sense of the endeavor of the human mind to understand our world through rational means supported by verifiable evidence. In regard to our companion term "spirituality," for many theorists in Religious Studies, the core element that links religion with spirituality is the awe factor, the experience of numinosity around which "religious" teachings and institutions evolve. The category "spirituality" has been produced across human cultures in modalities ranging from individual expression to institutionalized religions. For our purposes here, "spirituality" is intended to convey the qualities of: awe, numinosity, meaning, value, recognition of the sacred, and of the operation of conscience and consciousness. If "spirituality" arises from this sense of awe that leads to the assignation of meaning and value, then the inference of a "deity" as such does not necessarily follow. It is our contention that this "spiritual" dimension is an integral aspect of human experience that profoundly impacts perception of, and modes of action in the world, with implications for

physical, psychological, social and environmental health. Thus, if we are to achieve maximal comprehension of the human condition, for the purposes of redressing the ills that we suffer, this element of human experience must be brought into the equation. We intend for our coupling of fields to work in both directions: both in the examination of how spiritual orientations might apply to science, and the application of scientific and critical analysis to religion, spirituality and to the field of complementary and alternative medicine.

Basic philosophical premise

What links “science” and “spirituality” is that they both function as paradigms, models through which experience is filtered. In some ways these two paradigms appear to be directly antithetical to each other, yet in other ways they intersect. They clash head-on when considered from the point of view of rigid approaches of both scientific methodologies and absolutist religious dogma. Yet the points of intersection find perhaps no better illustration than in the example of Albert Einstein, one of the most influential figures of the 20th century. Einstein was a “scientist,” who initiated a sea change or “paradigm shift” in his own field of physics. Yet he was also a “philosopher,” who eloquently articulated a decidedly “spiritual” orientation toward the universe in a perspective that could be labeled “cosmic consciousness” (the title of one of the foundational texts in early 20th century mysticism and cosmology, by a leading American psychiatrist, R. M. Bucke). We need an interdisciplinary approach that encompasses “science” and “spirituality” just to understand and appreciate the work of Einstein, let alone the phenomena toward which he pointed. Similarly, religious traditions have always functioned to render a cosmology, a vision of the origin, nature, purpose and destiny of the cosmos, an endeavor that parallels cosmological theory in physics and astronomy, sometimes in ways that directly clash, yet at other times in formulae that surprisingly coalesce.

Science and spirituality represent two complementary domains of human intellectual endeavor at the forefront of individual and cultural experience. Both have a long and distinguished history in human affairs. Modern science, whether traced to the western Enlightenment, the Renaissance, the Greeks or earlier roots, has been inextricably interwoven with the evolution of human consciousness, and the quest for understanding of our place in the universe. Spirituality also manifests the same inherent human attribute that seeks to understand humanity’s relationship to the cosmos. Indeed it could be argued that spirituality led to science, which in turn leads us again to spirituality. Few serious philosophers or open-minded scientists would dispute the complementary historical relationship, nor would they narrowly define science as static fact (devoid of uncertainty), or spirituality as mere institutionalized religion.

Paradigm Shift

Building upon these interconnections, the proposed SSSA would feature as a central theme the paradigm shift(s) that we perceive to be occurring across many sectors of modern life, in academia, and in human consciousness. This (these) paradigm shift(s) (whether these are all components of the same, or whether they involve parallel paradigm shifts) is (are) effectively working to deconstruct established norms in the old dogmas of both mechanistic science and institutionalized religion, in favor of a new direction toward holistic norms. The paradigm shift begun by Einstein in the sciences is characterized by a shift away from viewing physical phenomena, including human beings, as objective, stimulus-response Newtonian machines that are devoid of any “spirit” or operating consciousness (the allegedly non-existent “ghost in the machine.”) It has its parallel in philosophy in the challenge to the old regnant Cartesian paradigm of mind/body dualism, and in religion in the challenge to the dominance of androcentric, absolutist dogmas of institutionalized Western religion.

The new paradigm shifts from viewing things as mechanical objects toward perceiving them as complex, interacting systems with emergent properties. It regards the older paradigm as reductionistic of phenomena that are far too complex to be adequately represented by quantifiable data alone. The centerpiece of the new paradigm is the recognition of active (even “conscious”) holistic systems interacting on sub-atomic, physical, biological, psychological, social, environmental and spiritual levels. The new paradigm in the sciences has led to relativity theory, chaos theory, string theory, quantum physics, the concept of the participating observer whose perception and intention affect the extra-mental environment, theories of strange attractants, synchronicities, non-locality and

interconnectedness, phenomena quite familiar in a “spiritual” context. In the environmental sciences it has produced the Gaia model of the earth as a superorganism biosphere that is now a central tenet of sustainability studies, and is an obvious re-emergence, in modern systems-science clothing, of ancient mother-earth world-views. The emerging paradigm is an eco-paradigm, it is a Gaia paradigm that self-consciously invokes a sacred earth/sacred cosmos, (a meaning/value dimension), and a specifically female spiritual orientation. For example, the compelling “cooperative” symbiogenesis theory of evolution proposed by a woman (Margulis) has made us reevaluate the “competitive” male conceived Darwinian model, and the two now co-exist happily.

In the medical sciences the paradigm shift has produced a wave of holistic, complementary and alternative medical practices that collaborate with non-Western spiritual healing techniques which themselves have been inherently holistic in their approaches since their inception. Models for bringing issues in health care and spirituality together are being incorporated in medical curricula across the country. Examples include the Univ. of Massachusetts Medical School’s “Center for Mindfulness,” the Univ. of Pennsylvania Medical School’s “Center for Spirituality and the Mind,” the NIH’s “Center for Complementary and Alternative Medicine,” paralleling UCHSC’s programs in Integrative Medicine and Spirituality in Medicine.

Thus, proponents of the new paradigm would posit that meaning/value/awe/conscious (“spiritual”) dimensions are at work in physical, biological, environmental, psychological, social, and health phenomena. These dimensions need to be incorporated into our research and teaching in order to increase the richness of our understanding of all these areas of study. Globalization of these issues not only demands open-minded dialogue but also calls for a broad interdisciplinary overview that avoids the compartmentalizing of the old paradigm(s). On the religion side the reaction against the paradigm shift is visible in the evolution-creation debate, which is a real issue in American society and education. Likewise, the polarization of Christian and Islamic dogmatic ideologies is a global problem linked to political struggles between various fundamentalist, conservative currents, reflective of old paradigms. Given the evidence of the newly emerging paradigm(s) appearing across these fields, it is incumbent on us as instructors to help students see how our emotional, intellectual and spiritual consciousness frames the dialogue and influences our experience. There is a compelling case for a curriculum that focuses more strongly on human development through the lens of holistic biology and humanistic psychology (with necessary qualitative and quantitative ramifications). We can bring together courses that focus on dynamic development in individual psychology and cognitive development (Freud, Piaget), education (Steiner) and collective evolution of consciousness (Jung, Gebser). All these approaches take a scientific, but also a ‘spiritual’ approach to analysis of dynamic organic systems. They are also firmly scientific in their adherence to general principles of evolution, ecology and the science of complex systems.

Educational goals and principles

The proposed SSSA can count on an exceptionally strong base of student interest. Religious Studies has grown by 600% in student credit hours since its inception six years ago and attracts students from a very wide range of disciplines. Similarly, an exploding interest on the part of current and prospective health science students in spiritually-based and alternative medicine (involving everything from nutrition and meditation to acupuncture and homeopathy), is rapidly bringing integrative medicine into the mainstream. This pronounced student interest in both religion/spirituality and non-traditional health science offers strong indication that adoption of the proposed SSSA will prove to be enormously lucrative for both the DDC and HSC. The potential for an innovative program like this to draw upon external grant funding is also strong. This SSSA might also offer a significant dimension to the proposed campus Signature Area in Health and Biosciences.

The proposed SSSA sets as its learning goals a thoroughgoing, critical understanding of the role of religious/spiritual dynamics in contemporary life, and in their application to the sciences. We seek to impart to students the intellectual tools they need to be effective, responsible, reflective participants in society. Among these tools are the cultivation and application of critical thinking in regard to religious, spiritual, scientific and health issues; facility with oral and written discourse; the ability to recognize spiritual orientations, biases and their implications for perception of and action in the world; and the development of the skills to dialogue, cooperate and learn respect for perspectives of diverse communities and cross-cultural currents. To develop these skills, students need the kind of approach that only an interdisciplinary course of study can provide. Although,

scholarly studies of such issues have previously tended to be “academic,” they have now taken on new immediacy. Thus, they need re-evaluation and repackaging in contemporary liberal arts curricula. The qualitative, contextual knowledge we seek to provide is potentially more “applied” than specialized technical knowledge, and in any event is complementary to valuable quantitative skills. We contend that analysis is weak without the complementary skill of synthesis, and it is mostly in the latter area that we need greater strength.

Related Proposals

Evaluations of initial signature area proposals remind us to strengthen existing programs. Our group is excited by the intriguing visions of the other ISA teams. Each team seems well positioned to develop the specific issues encompassed in its area, whereas we feel we could more profitably address “spiritual” concerns more directly in our proposed SSSA. In addition, if too many people representing different currents and directions are brought into one ISA, it might muddy the waters of what each wants to do. For these reasons we have decided to remain separate despite some clearly strong potential connections with other ISA’s. But we readily envision mutually enriching links that should be maintained more informally. For example, public figures such as Madeleine Albright have pointed to the severe shortage of understanding about religion that hinders American foreign policy, an area in which our ISA can provide significant data for the ISA on Public Policy and Decision Analysis. Likewise, the ISA on Consuming Popular Culture might want to consult us as they explore the growing consumer market for popular cultural expressions of religion/spirituality. Our SSSA would benefit greatly from information from the ISA’s on Sustainability and Ecology, and the mapping of the “environome,” in exchange for information on how institutionalized religions have posited anthropocentric views of “dominion” that may have contributed to environmental degradation. Therefore, we do not consider our SSSA to be an isolated group, but rather to be both a resource for and a beneficiary of ideas and discussions raised by other ISAs.

Strategic Plan: building on existing strengths

The proposed SSSA makes sense because it is a natural next step in linking together interdisciplinary programs already in place at both campuses. The RLST program at the DDC is now established with contributing faculty from Anthropology, English, Ethnic Studies, Geology, History, Philosophy, Political Science, Sociology, Physics and Biology. This ten department collaboration is currently a purely RLST/CLAS initiative. The proposed SSSA would involve faculty from disciplines in other DDC colleges (Art History, Counseling Psychology and Counseling Ed.) and would establish collaborative efforts with HSC. The long-term goal (3-5 years) is to develop the SSSA as an umbrella framework in which to build the existing Religious Studies Program (currently offering only the minor) into a degree that is highly relevant to understanding current issues in society.

To build upon this basis, we are asking for the addition of one tenure-track faculty line in each of the next five years, some of which could be joint appointments between different academic units. This might involve the conversion of one or more instructor positions to tenure-track. The order in which needed areas would be filled is variable. The first hire might be in the area of Native American Spiritual and Healing Traditions, (a possible joint appointment with Ethnic Studies with links to Fitzsimmons’ American Indian and Alaska Native Programs.) To function properly as a foundation for the SSSA, Religious Studies is asking to be recognized as a separately funded academic unit offering the major, supported by physical space adequate to house a growing faculty. It might not be necessary to assign an Administrative Assistant, at least not right away, since the current arrangement between RLST and PHIL to share these functions might still be workable.

The program of study would represent both the “Science” and “Spirituality” dimensions of the SSSA. Students would declare their focus in one of three tracks listed here, complete with subsets in each. Completion of 24 hours across any of the three tracks would constitute an area concentration in the SSSA. Course offerings include many existing and proposed courses, though listing these here would put us well beyond our 5 page limit. Providing a structure to the program, undergraduate students would be required to complete an initial and a senior seminar, the first toward the beginning of their program, the latter in their senior year, in which they would

present a senior project. These interdisciplinary seminars would be team-taught and would feature varying aspects of the connections between science and spirituality. The proposed three tracks are:

- I. **Spirituality in the Humanities:** incorporates the disciplines of Religious Studies, Philosophy, History, English and Art History:
 - A. History of Religion
 - B. Philosophy of Religion
 - C. Religion and Literature
 - D. Religion and Art History
 - E. Myth and Ritual Studies
 - F. Topics in Spirituality

- II. **Spirituality and Academic Sciences:**
 - A. *Social Sciences:* incorporates the disciplines of Ethnic Studies, Sociology and Political Science:
 1. Spiritual and Religious Traditions of Diverse Cultures
 2. Sociology of Religion
 3. Religion and Political Issues

 - B. *Integrated Sciences:* includes the disciplines of Psychology, Anthropology, Geography and Environmental Science:
 1. Spiritual Dimensions in Theoretical Psychology and Counseling Psychology
 2. Religion in Cultural Anthropology
 3. Holistic Biology/Ecology/Development
 4. Spiritual Dimensions in Approaches to Environmental Issues

 - C. *Physical Sciences:* includes the disciplines of Physics and Biology
 1. Quantum Physics and Spirituality
 2. Theories of the Cosmos
 3. Theories of Creation, Evolution and Intelligent Design

- III. **Spirituality and Health Sciences:** Courses could be taken by DDC undergraduates, and graduate students, drawing from pre-med and pre-nursing students and from the Masters in Humanities and Social Science programs; some of the courses could also be offered at HSC's Schools of Medicine, Nursing and Pharmacy, for students in spiritually-based, complementary and alternative medicine:
 - A. Non-Western Spiritual Healing Traditions
 1. Indigenous/Native American Healing Traditions
 2. Philosophical, Religious/Spiritual Medical Traditions of India
 3. Philosophical, Religious/Spiritual Healing Traditions of China

 - B. Psychology/Psychiatry and Spirituality

- C. Noetics and Neurology: Consciousness Studies
- D. Philosophy and Pharmaceuticals