

Sacred Heart Courses Engaging Science

Sacred Heart's grant proposal suggested a two-track integration of science: "Creation and the heart of the universe" at a cosmological level and "Love and the heart of the mind" at an anthropological level. In light of the conversation with advisors, six courses introduced science, three in each of these tracks.

In the first, cosmological, track, astronomical and cosmological insights were included in **DT 516 Trinity and Creation** and **CH 515 History of the Church Universal II**, the two primary courses identified in the grant proposal. DT 516 incorporated science into the creation portion of the course, developing appropriate material in consultation with the local science advisors and inviting them into the classroom for presentation and discussion with the seminarians. Students provided group presentations to highlight one scientific issue with pastoral relevance, describe the scientific perspective on the issue, and offer a pastoral perspective on questions that might arise among believers. CH 515 set forth a major project in which seminarians researched a scientist who has been named (or is in the canonization process). From this research, students crafted persuasive essays to argue for the contemporary relevance of the saint-scientist's life and thought. This course also incorporated a more thorough discussion of the Galileo Affair and its complex historical context, further enhanced by the participation of students in the science pilgrimage to the Vatican Observatory. Finally, **CH 625 The Catholic Church in America** highlighted the legacy of a U.S. Catholic priest, Fr. John A. Zahm, C.S.C. (1851–1921), in the Church's political, social, and intellectual history as it made sense of discoveries in biological evolution while maintaining a scriptural theology of creation.

MT 521 Biomedical Ethics, DT 511 Fundamental Theology, and PH 505 Philosophical Anthropology provided the second, anthropological track. The ethics course included special emphasis on the work of Adrian Owens, Professor at The Brain and Mind Institute, Western University, Canada and the former Canada Excellence Research Chair in Cognitive Neuroscience and Imaging. The integration of Owen's work dovetailed with the examination of the states of consciousness in patients who are either in a persistent vegetative state or minimally conscious state and the efforts to communicate with patients in a minimally conscious state. DT 511, for its part, incorporated scientific material on evolution in its discussion of the development of doctrine in a Catholic context. While theological materials provided the basic framework for understanding development, the historical progression in the Church's understanding of evolution provided a concrete example. However, unlike CH 625 above and its historical approach, DT 511 focused on the epistemological and philosophical context of evolution in relation to theology. Insights from the Fall 2018 version of this course and its discussion of science informed its revision for Fall 2019. Finally, PH 505 incorporated Dr. Nakia

Gordon, one of the project's science advisors, as a guest lecturer on the interface between consciousness and biological and neurological differences in the brain. This conversation was integrated into a portion of the course that used material from John Searle, among others, to transition from a metaphysical analysis to a more conscious-intentional analysis of the human being. Also worth noting is that DT 516 (Trinity and Creation), while focusing on the first track, also engaged this second track through anthropological material from one of the two science advisors, specifically concerning the evolutionary development of the brain and neurological structures.

Syllabi for these six courses, with scientific content highlighted, can be found here [link to folder of syllabi, found here:

<https://drive.google.com/open?id=1EPFkl6fgXbGfxeJVw5rlEguvUqvJ0wY8>

Or, do we want a rotating window of the syllabi here, that people can click on?].

Likewise, two other seminary faculty, Dr. Brian Lee (Sacred Scripture) and Dr. John Gallam (Philosophy), plan to follow the lead of these courses and incorporate science in future versions of their courses: **SS 515 Pentateuch and Historical Books** (Lee, on the reading of Genesis) and **PH 503 Contemporary Philosophy** (Gallam, on the philosophical implications of modern science). Both Lee and Gallam have shared drafts of syllabi with the grant leaders for feedback. Syllabi from these and any other Sacred Heart courses will be posted here in the future.