Humanities, Science, Scimat: A New General-Education Course

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General-education (GE) courses are offered in (almost) all American universities as a means to bridge the gap between the humanities and “science”, to prepare students to face the world once they graduate. Since being fluent in both areas will enable the student to be a better citizen and enjoy higher chance of being employed in the ever-changing market.

Unfortunately, most the available GE courses are too narrow in their scope and are confined either to the humanities or “science”. The GE course, “Humanities, Science, Scimat” (HuSS) created by Lam, offers something completely new. It is an interdisciplinary and cross-cultural introduction to the humanities and “science” from the unified perspective of scimat.

Scimat (Science Matters) is a new multidiscipline introduced by Lam in 2007/2008. *Conceptually*, scimat represents the four tenets that (1) Science is humans’ effort to understand Nature without bringing in God or any supernatural; (2) Science covers everything in Nature; (3) Nature includes humans and all nonhuman systems; (4) all research on human matters, humanities in particular, are part of science. *Disciplinarily*, scimat represents the collection of research disciplines that deal with humans; thus, scimat is the sum of the humanities, social science and medical science.

In this talk, I will present my experience of teaching this HuSS course in the International Summer School of 2015 at the Renmin University of China, Beijing. It has 32 sessions, each 45 minutes long, and consists of three parallel components: (1) The instructor introduced the proper relationships between humanities and (natural) science, from the perspective of scimat and with new developments in history, arts and philosophy. (2) The 27 students were divided into 5 research teams and worked on a research topic of their choice. Students presented progress report in class; each team handed in a formal paper at end of course. (3) The teams were treated and guided like research teams.

At the end, the students learned (1) the proper definition of science, (2) the proper relationships between humanities and science, (3) the proper understanding of history, arts and philosophy, (4) the new multidiscipline called Scimat, (5) using Excel to program, calculate and plot results of some stochastic systems (such as Random Walk and Active Walk), (6) how real research is done, (7) team work, (8) communicating efficiently and do professional presentations in MS PowerPoint, and (9) writing papers in publishable form, all in English.

Version 0.3 of a HuSS textbook is available. This course can be taught by *any* professor in any university.

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**Lui Lam** obtained his BS (First Class Honors) from University of Hong Kong, MS from University of British Columbia, and PhD from Columbia University. He invented Bowlics (1982), one of three existing types of liquid crystals in the world; Active Walks (1992), a new paradigm in complex systems; and two new disciplines: Histophysics (2002) and Scimat (2007/2008). Lam published 16 books, including *All About Science* (2014), and over 180 papers. He is the founder of the International Liquid Crystal Society (1990), the founder and editor of the two book series: *Science Matters* (World Scientific) and *Partially Ordered Systems* (Springer). His current research is in scimat and complex systems.