

Life Science & Human Values

Tier III Core Capstone

Instructor: Professor Matthew R. Silliman

Office: 100 Porter Street, room 6

Phone: 662-5449; Fax: 662-5368; **Email:** msillima@mcla.edu

Office Hours: Tuesday and Thursday 9:30 - 11 a.m., *and by appointment*

Required Texts and Materials

Connie Barlow, *From Gaia To Selfish Genes* (MIT Press, 1991)

Mary Midgley, *Science and Poetry* (Routledge, 2001)

Access to internet research tools and skills

Various handouts

We will begin the course by reading and discussing C.P. Snow's famous essay on the "two cultures" of the sciences and humanities. In it, Snow observed a deep chasm between those who study the sciences (broadly conceived) and those who pursue the humanities (equally broadly conceived). The premise of this course is that to be an educated person in the contemporary world one must necessarily enter into the cultural practices and understandings of both, though they are in many ways as far apart as when Snow wrote about them. More, such a person must be witness to and participant in the many ways that distinction, robust as it seems, is becoming progressively inadequate not only to the discoveries and thinking of both humanists and scientists, but to our individual and collective lives.

This would be a tall order for a single course, were it not for your exposure, in earlier Core courses, to the ideas and methodologies of the natural and social sciences, on one hand, and those of literary, historical, and philosophical work on the other, as well as your progress toward a more in-depth understanding of some particular discipline. You will need to bring all of that intelligence to bear on the conversation at hand if we are to succeed. Each of us needs not to be shy about what we have learned, nor rigid in our understanding of where it might lead.

Pedagogical Expectations

Motives: It should go without saying that everyone's presence in this course is motivated primarily by an active interest in undertaking a personal and intellectual challenge together with a group of similarly motivated people. What we are about is not credentialing or "getting a requirement out of the way," but curiosity about the subject matter and the important questions it poses.

Deadlines: Timeliness, and completion of assignments according to specifications, are measures of both scholarly diligence and respect. Assignments not completed on time will receive part credit.

Attendance: Preparation for class involves readiness to engage with the material and the class in active, collaborative discussion. Thus attendance is not optional, and assumes thorough preparation of all reading and writing assignments in advance.

Intellectual Honesty: Plagiarism is poisonous to an effective learning community, which relies for its very existence on trust and openness. Presenting others' work as your own, or failing adequately to credit the sources of your language or ideas, must and will have serious consequences.

Course Objectives

In all Tier III Capstone courses, students are expected to:

- 1. Acquire and evaluate information from multiple and varied information sources.* This course will involve reading, discussing and evaluating scientific, historical, and philosophical works in relation to each other, as well as independent library and web research and writing.
- 2. Connect academic learning to applications within the context of local and/or global communities.* Scientific discoveries and theories have a tremendous impact on contemporary life, direct and indirect, at every level. In this course we will try to think through the implications of some such findings, and evaluate some of the ways they are operationalized, for better and worse, in our collective lives.
- 3. Investigate and analyze complex problems/issues and draw reasonable conclusions, providing comprehensive support for those conclusions.* Both philosophers and scientists pay explicit attention to the process of systematically supporting (and critiquing) proposed solutions to complex problems. Discussion and writing in this course will attend directly to this process, in particular through the use of the CRITO outline format (see handout)
- 4. Effectively communicate ideas, solutions, and plans through a variety of media.* Classroom process in this course will be interactive and cooperative, and will involve students taking the lead with brief, collaboratively prepared presentations preparatory to further conversation. Students will be encouraged to think critically about the craft and technology of their presentations. Regular, analytic and reflective written work (specifically weekly PARQ assignments, see below) will also form a basis for discussion.
- 5. Work effectively in collaboration with fellow students and/or community entities to create a product that demonstrates the student has met outcomes 1-4.* The content of this course does not lend itself to service learning in obvious ways, though I am open to suggestions about relating the ideas of the course to involvement with community organizations and their missions. The "product" I envision as meeting these objectives is in one sense the successful completion of the course itself, and in another sense the term paper and presentation (described below), which will be crafted through a multi-stage process involving peer feedback and collaboration at several points.