

Proposal for Junior/Senior Cross-disciplinary Seminars

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I propose that the College create and offer a series of junior/senior seminars, each of which focuses on single issue or question of current concern that cuts across disciplines. Students in the class would represent a variety of majors, and bring their different expertises to bear on the question. One model is for the class to study the problem as a group, and eventually partition themselves into subgroups that would investigate different facets of the problem. The goal would be to produce by the end of the semester a single "white paper" written by the whole class. These class white papers could be posted on web, and would serve as both a useful resource and as advertising for the college.

Sample Topics

- Robotics: prospects and labor implications
- Wind energy: economics, politics, and aesthetics
- Human longevity: philosophy and social implications
- Mind-enhancing drugs: myth, reality, implications

Rationale

As you can see from the above samples, I have in mind topics that would engage science majors. At Smith now, science majors take seminars such as "Advanced Inorganic Chemistry," or "Quantum Mechanics" when they reach the point in their studies when they are prepared for such advanced material. I would not want this to change. But given the large number of majors whose careers will not be focused on advanced scientific research, we are missing an opportunity of letting them apply their well-earned expertise to a broader range of questions. Often we find our seniors taking 100-level courses outside their major as a means of exploring new topics, mixed in with the just-out-of-high-school students. This underutilizes their talents. Moreover, many of them hunger to apply their knowledge to real-world problems, and will in fact do so upon graduation. Finally, the experience of collaborating to produce a consensus document is valuable and realistic (and challenging!).

Details

The issue studied should cut across many disciplines, so that the expertise of as many majors as possible could be accommodated. The topics of white papers produced by the National Academy of Sciences could serve as models. Many of the Kahn Institute topics could be narrowed to a suitable seminar focus.

Although I am suggesting that the class produce a single document as its final product, it should be arranged that students perform both independent research and collaborative research in the course of the semester. The subteams formed would mix the talents of the students in such a way that the sections of the white paper for which they are primarily responsible could be assessed by the instructor along dimensions that could be attributed to individuals.



Although team-teaching would be natural, I do not think it is necessary, as I view the instructor primarily as the organizational leader. The expertise should come from the students, not the instructor.

I do not view these seminars as a replacement for advanced disciplinary seminars, nor as a replacement for individual honors theses, both of which play different roles. But they would give all students a third option, which I believe they would find attractive.

Staffing

I have not thought about staffing and support issues.

