

Teaching physics in the corridors

At a time when physics professors are feeling blue about their empty classrooms and wondering where to go from here, I am happy to report about one professor who is thinking positively. MIT's Philip Morrison, noted theorist and educator, is urging us to get physics out of the laboratory and "into the corridor" where the rest of the people on campus can be encouraged to gratify their scientific curiosity. Morrison feels there is a seller's market for special courses that appeal to the deeply ingrained (although often unnurtured) interest of the intelligent layman in the natural sciences. Evidence that he is right is being provided by the response to a number of programs of this kind that have been set up on campuses throughout the country, including a quite successful one developed by Morrison himself at MIT.

In the program at MIT undergraduates from both the sciences and the humanities enroll in a series of seminars that single out some particularly intriguing topic in science as the focus of study for the semester. For instance a recent topic was the Crab Nebula. The students break up into groups of one to ten to investigate various facets of the subject and report back to the seminar. One of the groups always has the assignment of summing up what has been learned in a special presentation for a wide public audience. Morrison finds that these seminars generate a high level of enthusiasm in the students who end up devoting impressive amounts of effort on their assignments. For example, the public presentation for the Crab Nebula, which played to a standing-room audience at MIT under the title "The Multicolored Crab," turned out to be a multimedia production involving nine projectors, 500 slides, videotape and original musical score.

For those who might argue that this kind of interest would only be possible on a campus in an intellectual mecca such as Cambridge, Robert Gould of Middlebury College in Vermont reports equally encouraging results with a similar program.

Moving physics out into the corridor is, of course, exactly the sort of thing we need to do if we are to succeed in fostering a deeper understanding and appreciation for physics on the part of the public. It should be especially useful in helping to win the struggle among today's youth between science and mysticism. The young people will give up astrology, Morrison asserts, if you can help them to understand that there is something better.

Not all physics professors have the talent for this kind of teaching. But those who feel capable of taking on this challenge will not only be helping their departments but will be making a valuable contribution to their profession and society.

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