

Cc: michael stone <m-stone5@uiuc.edu ...snip... Robert Haber <r-haber@uiuc.edu>
From: michael stone <m-stone5@uiuc.edu>
Subject: e-version of TAM open meeting remarks.
To: aamin@uiuc.edu

Dear Professor Aminmansour:

Below is a written version of the remarks I made at the TAM-MIE merger open meeting on Dec 7th:

My name is Michael Stone. I am a professor in Physics. I am familiar with the activities of the TAM department, having served on several PhD thesis committees, and having given seminars there.

The Theoretical and Applied Mechanics department plays the role at UIUC that a department of Applied Mathematics does at other universities. It has been national center of excellence and a jewel in the crown of the engineering science program for many years. Despite the confusing similarity of names, the discipline of Theoretical Mechanics is quite distinct from Mechanical Engineering. TAM teaching and research is focussed on the rigorous foundations of continuum mechanics and their applications to a wide range of natural phenomena, rather than a narrow range of engineering applications. It is unlikely that the popular and high-quality graduate and undergraduate programs will survive the merger. Indeed assurances have been given only that currently enrolled students will be able to finish their degrees, and, as Interim Head Nancy Sottos said in her remarks, no other theoretical mechanics program has survived such a merger on other campuses.

The proposed suppression of TAM, together with the crisis generated by the recent denial of tenure to two outstanding mathematical physicists by our mathematics department, is being perceived from outside university as sign that the UIUC administration is hostile to applicable mathematics research. This perception will make it difficult for the merged department to attract high quality faculty in fundamental mechanics to replace those who have (or are going to) depart UIUC as a result of the fear uncertainty and doubt generated by the merger plans. Even if new faculty are recruited, it will be hard for them to obtain tenure in a department which comprises mostly of people with a quite different intellectual culture. (A similar culture-clash is what has lead to the problems in Mathematics). This cultural divide is manifest: although Huseyin Sehitoglu asserted that his department contained many mechanicians, with the tacit implication that their interests overlap with TAM, few of these people are able or willing to teach the TAM service courses, and none the advanced graduate courses. This is because what MIE calls "mechanics" is a different subject from what TAM means by mechanics.

The fashion for abolishing theoretical mechanics departments seems to be unique to the USA. The discipline flourishes in Europe and Asia, and the US is in serious danger of losing its international standing in this area.

Although the Educational Policy committee will be powerless to prevent the COE continuing to subject TAM to the death of a thousand cuts, I hope that it, and the senate, will reject the merger proposal, and so send a signal to the UIUC administration that something as valuable as TAM should not be destroyed on the basis of flawed arguments that ultimately boil down to the irrelevant fact that "US News and World Report" does not rank TAM departments.

----Michael Stone