Science education

I have read with interest Modak’s article (Curr. Sci., 1996, 71, 960–967) on a subject which has been uppermost in the minds of many biologists. He should be congratulated on giving shape to the teaching of such an integrated course in life science in our universities. The suggestions made on the structure of the course, in his well thought out table on pp. 965–966, are very comprehensive, making room for choosing specialized streams and optional courses. Perhaps one can add that inclusion of field work in the 4th and 5th years would make the somewhat overweighted theoretical portions in each year a more holistic approach to a 5-year MSc programme. Creativity can come, in a large measure, by exposing young minds to the marvels of Nature in addition to what they can get within the four walls of the laboratory.

The observations on managements and elected governments made by Modak are essentially what exist today. His remarks on teachers thriving on private coaching classes and tuitions while disregarding their professional obligations in the classroom and laboratory summarize the general apathy to the maintenance of high values in education by the teaching community. Many of us have been silent observers of this new and undesirable trend.

The nationwide debate on the pros and cons of the National Science University (NSU) has done us good in that it has raised hopes that, some day, in the not too distant future, a bold and imaginative government will muster the political will to overcome any obstacle in the establishment of the NSU. I, for one, live in the hope that Modak’s proposals need not wait for the day NSU becomes a reality before this century is out. If the Vice-chancellors of all our universities press for implementation of the proposed NSU, it would be an achievement. I cannot understand why, if there can be exclusive universities for most of the Indian languages (and now the one contemplated for Urdu), and also for professional streams like Agriculture, Medicine, Veterinary sciences, what is the problem in an NSU exclusively for basic sciences and mathematics?

I would urge the Vice-chancellors of Indian universities to catalyse the UGC and the Inter-University Board to initiate a plan of action for this 5-year integrated course not only in the life sciences but also in other disciplines of the physical sciences. The unsealed hand behind all the rush to seek admission to professional courses is really the parental anxiety to see their wards take to, willy-nilly, medical and engineering courses. If this psychology is to undergo a change, scholarships/fellowships have to be offered liberally to assist the discerning science students to opt for a career in science of a very provocative type (which the integrated Masters’ course can offer) albeit parental pressures.

T. S. Sadasivan

‘Gokulam’, 86/1, M. K. Amman Koil Street, Mylapore, Madras 600 004, India

I was delighted to read the article ‘Science Education in Indian Universities: Proposal for a 5-year integrated MSc course in life sciences’, by Sohan P. Modak (Curr. Sci., 1996, 71, 960–967). His concern and caution coupled with a positive proposal for a potentially beneficial course could be welcome by all concerned but it is only implementation that has always been a ‘bottleneck’ in this country. I am surprised that the author is unaware of an ongoing near-identical programme in life sciences at Bharathidasan University, Tiruchirapalli existing for nearly a decade now. This 5-year integrated programme, which is the brain-child of its earlier Vice-Chancellor A. Gnanam, attracts over thousand plus 2 completed applicants each year for the entrance test in which only 24 get selected. As the programme is that of the University, funded by the State Government, nearly 70% of the seats are reserved for various communities, leaving only 30% for open competition. If some central agencies come forward to fund this programme, nearly the reverse could be the situation. Although the students out of this programme prove infinitely superior to regular postgraduate students from other colleges and universities and have been successfully placed in academic institutions and industries in India and abroad, the programme cannot be considered a total success because of the usual bottlenecks. Among the important ones are — the lack of proper funding for recurring and non-recurring expenses in running the course, lack of adequate faculty and infrastructure, etc. We often have to be content with excellent proposals and programmes which cannot be implemented in this country with its complexity of problems and highly varied priorities of the powers that be.

G. Subramanian

Department of Microbiology,
Bharathidasan University,
Tiruchirapalli 620 024, India