

tion, and curricular programming in some of China's leading universities. The observations, ideas, and knowledge which this group gathered were evaluated and passed on to the faculty of the Consortium's member schools.

The Consortium has been conducting workshops and seminars to improve teaching skills. The participants are taught how to improvise and prepare teaching aids like tapes, film slides, transparencies, and three-dimensional models.

Lectures have also been sponsored by the Consortium to provide science teachers with current information on various fields. Some of the topics that have

been taken up are: Statistical Research and Design in Science, Cellular and Molecular Biology, and Photosynthetic and Metabolic Pathways. The most recent (October 1987) was a lecture-forum on the "Critical View of the Human Environment".

The Consortium, through its working committees, is still exploring ways to upgrade and enrich the science programs of the member institutions. It is the hope of the Consortium that its activities will lead towards the growth of science and its dissemination and, ultimately, contribute towards national economic development. ❀

On the MBB Program

Virginia D. Monje

Dear Cely,

Hi! Thanks for your letter.

So you're planning to get a Ph.D. degree in Molecular Biology and Biotechnology (MBB). You'll surely need the full support and cooperation of your family. Your spouse will have to get used to going to bed alone while you stay up preparing for an exam. That's about 16 exams in 4 months, not counting the term papers, experiments, reports, and problem sets.

In any new venture, the toughest but most exciting part is getting started. The MBB program is understandably suffering from birth pains (lack of lab facilities and lab materials). The MBB committee is still trying to get its act together. But plans are afoot for an MBB building. Major equipment like a DNA sequencer and synthesizer is coming.

The courses we're taking now are really undergraduate prerequisites to the Ph.D.-level coursework. Our long years of teaching have kept us apart from the onward rush of science, so we have to do a fast-reverse before we can go fast-forward. We're into the second semester of MBB—Miren Santos, Lety Ver, and myself, all aging mother hens scratching hard together; and Rayda Edding and Cristina Aquino (not THE Kris), sprightly chicks fresh from college. With us, too, are Aida Agullar-Casido and Malou Nicolas, who carry full loads teaching at UP Manila while tackling MBB.

So far, we've had Nucleic Acids under Dr. Clara Y. Lim-Syllanco, Cell Culture (*in vitro*) under Dr. Gloria Enriquez, Protoplast and Anther Culture under Dr. Francisco Zapata (a Peruvian plant breeding expert at IRRI), and DNA Analysis under Dr. Apollinario Nazarea.

Dr. Nazarea gave us individual one-semester projects on DNA and RNA probes using specially designed software. My problem was that my knowledge of computers had not gone beyond Poker Game and Frogger. It was a comfort to know that Miren and Lety knew just as little. This semester Dr. Debbie Co exposes us to the marvels of gene manipulation.

This sudden transition to full-time student, after teaching and mothering for ages, feels like jumping into a pressure cooker; being at the receiving end of the blows of academe again is surely a different experience. My son Boggie, seeing my sore mood after a tough exam at one time, commented, "Nanay, dose of your own medicine!"

Your biochemistry background is a big asset. And remember the memory tips you gave me in college? They still work now. Do join us. Experience with us the excitement of this new field of study.

Write again, and call me when you're in Manila.

Fondly,
GIE

P.S. MBB brochure attached. ❀

The author, a biochemistry teacher at U.P. Diliman, is now a full-time student in the Ph.D. in Molecular Biology and Biotechnology program of the University of the Philippines at Diliman. This article is her reply to a friend asking about her first semester in the program.

The following is an excerpt from the MBB brochure.

The Ph.D. program in Molecular Biology and Biotechnology is administered by an interdisciplinary Graduate Committee (GC-MBB) composed of doctoral degree holders, which is attached to the Office of the Dean, College of Science. Admission to the program requires a Bachelor's or Master's degree from a recognized institution of higher learning and a very high degree of intellectual capacity and aptitude for advanced study and research in molecular biology and biotechnology. A candidate to the MBB program may be given a placement examination to assess his academic preparation. If he performs poorly he may be required to enrol in the appropriate undergraduate remedial courses.

Students admitted into the Ph.D.-MBB program who have a B.S. degree are required to complete at least 45 units of formal graduate courses; those who have M.S. degrees are required at least 24. The normal study load per semester is 9 to 12 units. A cumulated weighted average of 1.75 or better is required of the student at the end of each academic year until completion of the program.

The program consists of five 3-unit core courses: MBB 201-Advanced Molecular Biophysics I; MBB 220-Advanced Biochemistry and Physiology of Cells in Vitro; MBB 240-Advances in Genetic Manipulation; MBB 280-

Techniques in Molecular Biology and Biotechnology; and Biology 250-Advanced Cell and Molecular Biology. Electives can be chosen from among the following areas of specialization: genetic engineering and biotechnology, molecular physiology and biochemistry, cellular immunology, and molecular biophysics.

Within a year after completion of the core courses a student is required to take a written and/or oral Preliminary Examination. After passing this and after completing two-thirds of his program, the student is required to take an oral Candidacy Examination where he gives a seminar on his chosen and approved research topic and is examined on his grasp and mastery of the field he chose to specialize in. Passing this exam advances him to candidacy for the Ph.D. in MBB degree. He then works on his dissertation which must be an original, independent research and which, upon completion, he must defend orally.

It is the desire of proponents of the Ph.D. program in Molecular Biology and Biotechnology to produce students who can pursue careers as molecular biologists and biotechnologists - professionals who can later undertake independent research and development programs in their respective institutions. ❖