

TRAINING OPPORTUNITIES FOR THE SANITARIAN¹

THE UNDERGRADUATE APPROACH

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Before this audience, it is hardly necessary to emphasize the increasing importance of environmental sanitation. One need only take note of the large Federal appropriations that are and have been made for research, the strengthening and expanding of university courses in engineering and sanitary science and the substantial sums presently available for student stipends allotted to graduate and specialized training. At no time in our history has the importance of man's physical environment been accorded such emphasis, nor given such critical attention.

With the current situation such as it is, it becomes self evident that more and more people are needed in this field who have sound academic preparation in the basic sciences. The place to begin, in my judgment, is at the undergraduate level just as we do in other science oriented courses, such as major study in chemistry, mathematics or physics.

Every person entering this broad yet specialized field must first be indoctrinated in the theory and background of past and present day attempts to control the environment. In addition, there must be a good grounding in the administrative structure of public health and the legal implications that are involved. While this background is highly important, it is even more important that the recipient of the baccalaureate degree come out of his academic experience as a well educated man; a man who can make reasoned decisions and use good judgment. Of course this is true of all educational and academic endeavors, but I mention it particularly at this point because there are some who feel education in sanitary science is too specialized.

A study of the curricula of several colleges and universities offering a major in sanitary science and public health reveals that there is close similarity in the pattern of course requirements. Most all require the satisfactory completion of 124 hours of

undergraduate work. Broken down further, it is interesting to see what areas of study are required and the per cent of time devoted to each. I have broken these down into the usual academic categories which are as follows:

1. *The Physical Sciences*, such as mathematics, physics, chemistry and geology. These account for about 25% of the curriculum, or about 30 credit hours.

2. *The Biological Sciences*, which include such subjects as, zoology, botany, microbiology, entomology and physiology. In this case we find that 21% of the student's course time is spent in these areas, amounting to about 28 credit hours.

3. *The Social Sciences*, such as anthropology, sociology, psychology, government and economics. In this area we find 10% of the requirements, or about 12 credit hours.

4. *The Humanities*, such subjects as English, foreign language, literature, speech and history. The per cent required in this category is 10, amounting to about 12 credit hours.

5. *Public Health and Sanitary Science*, the specialized courses such as epidemiology, food and milk control, sanitary bacteriology and chemistry laboratory, public health administration, statistics and environmental sanitation. This accounts for 24% or about 30 credit hours.

6. *Other Courses*, the balance, bringing courses to 100%. These consist of such items as physical education and electives.

I call your particular attention to the fact that the physical, biological and sanitary sciences constitute about 70% of the total credit hours required, but would also mention that only about one-quarter of the total academic time is spent directly in the major and specialized area of sanitary science.

What are the opportunities in undergraduate education? At the present time, there are eleven colleges and universities that offer the B.S. degree in this field. Enrollments, I regret to say, are all too low. Those of us in this work know that job opportunities are many. We know also that an undergraduate course is excellent preparation for further study at the graduate level. It is our experience

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that most any graduate from such four-year degree course has no difficulty in qualifying himself for advanced work. In the case of my own University, better than 40% of our sanitary science graduates now hold a Master's or higher degree.

In this area we are in competition with many other sciences and professions. However, with current needs as great as they are an increase of as much as 500% in total student enrollment would not result in enough graduates to fill new positions created

nor man existing positions that become vacant.

Finally, it now appears that the Public Health Service, through some of its grant programs to institutions offering public health training, may help with scholarships and student stipends. This, it appears will probably be started on a small scale, but it is hoped that the plan will attract into this field young people who have an interest in the health oriented professions and as a consequence student enrollments should increase.

International Association Of Milk And Food Sanitarians

Committee Reports

**PRESENTED AT 49TH ANNUAL MEETING
OCTOBER 24-27, PHILADELPHIA, PENNSYLVANIA**

REPORT OF THE PRESIDENTIAL ADVISORY COMMITTEE ON ENVIRONMENTAL HEALTH PROGRAMS — 1962

The Committee has not had an opportunity to meet together for an open discussion of the subject area assigned. The recommendations which follow have been developed as a result of limited correspondence between the Chairman and individual Committee members.

The area assigned to the Committee for study is regarded as one of extreme importance to the future course of the International Association of Milk and Food Sanitarians in that the program of the Association and content of its Journal dictates its image to present and prospective members. Thus, the Committee wishes to emphasize the fundamental nature of the recommendations which it proposes to offer. Implementation of these recommendations by the Executive Board would, in the Committee's opinion, tend to further identification of the Association's mission as one of broad service to the sanitarian employed in the projection of local health department programs. However, in view of the Association's long standing relationship to milk and food sanitation, the recommendations which follow should be considered as additions and not substitutions for present program elements.

With respect to categorical programs in the areas of air pollution, water pollution, radiological health and occupational health, it is not believed that the Association or its Journal can expect to provide either effective dissemination of technical information or significant program activity. The Committee does, however, recommend that general review type articles in these fields be incorporated in the Journal of Milk and Food Technology from time to time in order to keep the membership informed of new developments.

There are five program areas which, in this Committee's

opinion, should be included within the Association's framework of committee activities and Journal coverage. These, with specific recommendations for action, are listed below:

Institutional Sanitation

It is recommended that the Association establish a Committee on institutional sanitation with a general charge to (a) determine program needs in this area, and (b) work with other groups in the development of standards, recommended practices, manuals, and such other program guides as may be indicated. A symposium on this general area is suggested for the 1963 Annual Meeting.

Accident Prevention

This is an area where the milk and food sanitarian could advantageously expand his efforts by participating in programs of home safety, institutional safety, and industrial safety, particularly in those industries with which he is principally concerned. It would appear to be in order for the Association to establish a Committee to (a) work in cooperation with national official and voluntary agencies, such as the National Safety Council, the U. S. Public Health Service, and the American Public Health Association, who all have established programs in the Accident Prevention Field, and (b) keep the membership informed as to program needs and developments. Liaison could be established with the Accident Control Committee, Engineering and Sanitation Section, APHA, in working toward the development of criteria for the role of the sanitarian in Accident Prevention. Cooperative effort could be carried out by this Committee in support of home and industrial safety programs established within the Division of Accident Prevention, U. S. Public Health Service. Of particular importance to the Association would be the possibility of cooperating with the Food and Beverage Section, Industrial Division, National Safety Council.