

V. What should be included in "General Chemistry"?

Chairman--S. F. Darling, Lawrence College, Appleton, Wisconsin

Secretary--Sister M. Emeran, O.S.F., College of St. Francis, Joliet, Ill.

"General chemistry" was defined as the general chemistry year course for non-science majors and as such a terminal course. Of the fifteen colleges represented by the group only five offer such a course. The others offer a course in general chemistry to a heterogeneous selection of majors and non-majors. In the discussion, difficulty in arriving at definite conclusions lay in the tendency to be ambiguous about the term "general chemistry". It was generally agreed that where the group was mixed the students that plan to continue their pursuit of scientific training should not be hindered by any limitations of a course designed to fit the non-majors. It was also agreed that in the case of students who have had adequate training in high school chemistry, the superior student should be given opportunity to progress. Also of general opinion was the idea that the "general chemistry" course should include such material as is essential for the complete education of the non-scientist professional man. Finally, it was unanimously agreed that a primary essential for any course in general chemistry is ENTHUSIASM on the part of the teacher.

The chairman, S. F. Darling of Lawrence College, opened the discussion with the statement that since many of the modern texts are rather radical in their approach to chemistry and in their relegating descriptive material to the background or in some cases of not including it at all, the teacher of chemistry is compelled to take inventory and possibly revamp his syllabus. The following topics were considered:

the divorce of theory and fact; the periodic table as a core for organization of subject matter; inclusion of organic chemistry; radio-chemistry, the place and time allotted to it; nomenclature; stoichiometry; problem solving; field trips, and the "gray areas" of chemistry.

It was generally accepted that a major portion of the descriptive chemistry included in the older course was not an essential part of the modern lecture. Mr. S. R. Watkins of ^{Boe}~~Augustana~~ College pointed out that this introduces a problem of laboratory work for the first few weeks. The aims of laboratory work were defined as:

1. the teaching of basic techniques
2. presenting opportunity to experience the experimental basis for the theory proposed in the lecture.

Mr. R. A. Bernsten of Augustana College questioned the advisability of spending time on technique training as such, since the student does not seem to carry over such training into successive courses.

The necessity of correlating lecture with laboratory, as also the desirable sequence with regard to the two, were considered. Most of the group felt that the experiment preceding the presentation of the theory in the lecture gave the laboratory experience more of the character of a true experiment rather than an exercise.

To relieve the boredom and futile redoing of experiments by students who have had an adequate high school course, two suggestions were made. Mr. Bernsten of Augustana College recommended the introduction of quantitative aspects. This gave rise to the consideration of the use of analytical equipment by underclassmen. The second suggestion, made by Mr. Cey of Ohio Wesleyan, was to tailor the experiment to the capability of each student. Let him repeat experiments if he

so chooses. Introduction of new techniques, such as chromatographic procedures, was deemed advisable by Mr. Hood of Blackburn College. More preparative experiments are also desirable in the general chemistry laboratory schedule. Mr. Oey stressed the need of teaching students to be practical.

Topics of related interests that formed part of the discussion included division and classification of students. Sister Amelius of Alverno College reported that their procedure is to divide the students in chemistry on the basis of the mathematic courses pursued by them. Mr. Darling reported the Lawrence College classifies its chemistry students on the basis of the college entrance examination results. In many colleges sectioning is a problem since chemistry classes parallel language divisions, etc. The problem of the superior student evoked the suggestion of waiving the fundamental course requirement and allowing the student to go into the sequence course.

Participants

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Bernsten, R.A., Augustana
Darling, S.F., Lawrence
Deters, Valparaiso
Golding, DeFauw
Guyette (Mrs.) Rockford
Hood, Raymond, Blackburn
Jacob, F.E, Drake
Massie, Fisk
Marshall, Cornell
Matthew (Brother) St. Mary's
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Sister Amelius, Alverno
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