

SUMMER PROGRAM

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Summer Program Coordinator

I spent the summer at Fermilab as coordinator of the Summer Program and was in close contact with the students daily. In addition, contact was maintained with the student's supervisors and the Summer Program Committee.

There were 16 undergraduates and 5 graduates in the 1974 summer program. Of the 16 undergraduates, 11 were physics majors, 2 were electrical-engineering majors, and 3 were math majors. Thirteen students had finished 3 years of college, 3 had finished 2 years, and 1 had finished 1 year. The students came from 11 states and 13 colleges.

Students were assigned to a variety of groups at Fermilab. Five students in the Accelerator Division represented the largest number in any one part of the Laboratory. The success of the student's assignments can be judged by the fact that no student requested a change of assignment, even though they were encouraged to do so if they felt that they had been improperly assigned.

There are several features of the Summer Program which are worthy of note:

1. Lecture Series. A biweekly lecture series was presented. Different speakers gave lectures on various aspects of Fermilab's work. The lectures were given after working hours, at 6 p. m. if they were at the Laboratory and at 7 p. m. if they were at Aurora College. The lectures were generally well-attended and well-received by the participants; usually an active question and answer period followed. Some of the difficulties with the lectures centered around problems related to the following:

- (a) The academic level of the participants for whom the lectures were designed varied considerably.
- (b) The level and style of presentation by individual lecturers varied widely.
- (c) The hour at which the lectures were conducted were not widely accepted by the students. The students felt that 7 p. m. was not a suitable hour for the lecture series and should be conducted during the normal work day.

The nature, purpose, and format of the lectures should be reviewed in view of these problems. Personally, I would like to see the Lecture Series move in the direction of student-centered lectures. This would permit students to present topics that are selected and developed by them. The development and presentation of such topics could be done under the direction of a Fermilab scientist who is experienced in the area of the students' interest.

2. Academic Options.

(a) Electronics. Cordon Kerns, a member of Fermilab's Research and Development Section, set up an electronics Laboratory in a conference room with equipment borrowed from the Laboratory equipment pool. The type of equipment and test instruments used in this Laboratory is not often available at the student's home institution. Many of the students took advantage of this learning experience and indicated that they learned a lot.

(b) Computing. A remote terminal of the Laboratory PDP-10 with a separate telephone was set up in the students' dormitory and was heavily used.

3. Student Reports. Each student wrote a report on the Laboratory project on which he worked. These reports are included in the evaluation book in their unedited form. One of the aims of the reports was to give professors at the students' home institutions a basis for judging the quality of their students' experiences.

Another objective of the reports was to aid the student in assessing the value of his work in relationship to his assigned section and the total mission of the laboratory; and the extent to which the work contributed to his individual professional growth.

Although the students knew a report was required, most of them of course, did not write theirs until the last week. This prevented them from writing reports which were commensurate with their capabilities and background. More and earlier attention should be given to the development of students' reports in the future.

4. Housing. Aurora College did not prove to be an ideal location for the housing of participants. Inasmuch as Aurora College has no commitment to the goals of the program and is removed from the Laboratory it did not provide the type of climate which the students needed for quick and easy adjustment. Many of the problems related to housing can be alleviated by considering on-site housing of participants.

5. Extracurricular Activities. The group was given a tour of Argonne National Laboratory, the Museum of Science and Industry, Malcolm X College, and downtown Chicago. This part of the program left something to be desired. In the future, recreational activities based on the interest and needs of the participants should be developed by a committee which is composed of members of the EEO staff and participants in the program.