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Advanced Placement Program Chemistry

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Advanced Placement Program in Chemistry

Chemistry is currently in its third year of operation in our Davenport High Schools. As classes in college freshman chemistry taught to seniors, it is offered to elected students. To be selected a student must meet certain criteria:

1. **Scholastic Achievement** - grades earned in science courses must no lower than a B and a consistent high record of performance in all subjects must have maintained.

2. **Performance on Standardized Tests** - testing results should place the student in the upper 10% of his class.

3. **Maturity** - good study habits and a high level of general maturity are required for success.

Students who are invited to enroll in APP Chemistry must meet the above requirements and must have completed the high school chemistry course. The selection of student for these classes is not done by just one or two people. Science teachers and counselors are asked to evaluate and express their opinions on potential candidates for the classes. The candidates, along with their parents are then invited to an information meeting. At this meeting APP Chemistry is explained, and the students in consultation with their parents are asked to make a decision within a few days regarding enrollment in the course.

Our typical student in these classes has taken biology in the ninth grade, chemistry in the tenth grade, and physics in the eleventh grade. In addition, he has usually accelerated his

An advanced qualitative analysis experiment in progress.

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program in mathematics.

The classes in APP Chemistry meet seven periods each week. They are heavily laboratory oriented and carry considerable emphasis on supplemental reading and discussions. Mr. Jack L. Hudson, Chairman of our West High School Science Department, developed the original course of study and he and Miss Mary Sievert, Chemistry Instructor at Central High school, made revisions in the course after its first year. The course’s content is patterned after current practices in college freshman chemistry at numerous colleges and universities in the Midwest and the outline published by the college Entrance Examination Board. As is typical of good college courses, day to day assignments are not the mode. Rather, assignments are given in advance to cover a longer period of time. This method encourages better utilization of the students time and aids him in his development of responsibilities.

Students in these classes are offered the opportunity of taking the College Board advanced Placement Examination in Chemistry which is administered in May of each calendar year. Taking this examination provides a standardized scale rating from the College Entrance Examination Board for the student to use in applying for college or university consideration of his course work.

It is not my intent to treat specifically the APP Chemistry course’s content in this paper, but rather to acquaint you with our program and the experiences which we are having with it. Thus, in the remainder of this report we will consider the results which have been obtained with our first classes of students in the program.

A follow-up questionnaire was sent to each student who had taken the course last year after he had been in college for approximately six weeks. (It is interesting to note that 100% of the questionnaires from these students was returned.) Students then enrolled in college who had taken the college chemistry course in high school had this experience treated in one of four ways:

1. **Received college credit** - 16% had received from three to eight semester hours of credit and an additional 10% were slated to receive credit upon satisfactory completion of courses in which they were currently enrolled.

2. **Advanced standing** - 40% had received an advanced standing status.

3. **Honors** - 28% received placement in an honors program.

4. The remainder did not receive any of these three, but 16% had turned to a project which he developed in connection with his study of college freshman chemistry.
ed down the opportunity for one of the three cited above.

When students were asked if they had it to do all over again, would they take Advanced Placement Program Chemistry, 96% indicated they would. A number of statements were included with the answers given to this question. From these statements, I quote the following.

1. “The credit which I received and the year in chemistry which I otherwise probably would not have been able to fit into my college program, made the course worthwhile.”

2. “It provided an excellent background for the chemistry course I am now taking.”

3. “I would take it because it taught me enough chemistry to make me feel confident, moving into organic as a second course.

4. “Not for the chemistry, but for the way the course was taught. The lecture and the lab sessions prepared me as a high school senior for the big change over in instruction between a high school science course and a college science course.”

These students are attending nine different colleges and universities. Their experiences there are as varied as the schools which they attend. What they received in the way of direct benefit differed accordingly. However, we feel that they received a challenge and an opportunity commensurate with their abilities while seniors in high school.

It is our contention in Davenport that—while the students with a given grade differ in physical characteristics, chronological age, etc.,—they also have significant differences in maturity, grade achievement, and potential as shown on standardized tests. We feel a successful way to meet these differences is through offering courses such as Advanced Placement Program Chemistry.

REGIONAL MEETING

The South Central Regional Meeting of the Iowa Science Teachers will meet March 11, 1967, at Lamoni High School, Lamoni, Iowa.

Lyle Hanson, Director
South Central Region