
Oklahoma High School Institute

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The High School Institute of Oklahoma State University was initiated in 1955 as an attempt to stimulate the interest of high school students in science and engineering, and to furnish information, contacts and experiences that would assist the individual in choosing his life work.

The institute is a three-week program held on the Oklahoma State campus, where students of similar interests and aptitudes associate under normal college conditions. They live in a university dormitory, eat in the university cafeteria, browse in the excellent university library, enjoy recreation in the air-conditioned student union and attend scheduled classes during a regular academic session. The classes are especially designed with the subject matter tailored to fit the need.

The training is quite concentrated. The group is in session, with hourly breaks and a change of instructors, from 8 o'clock until 12 noon

and from 1:30 to 4:30 p.m. They return for a two-hour session in the evening.

The first three institutes have been devoted to engineering and the physical sciences with enrollment limited to boys who had completed the junior year in high school. Plans now call for an expansion of the program to include biological and earth sciences, with enrollment also open to girls.

Enrollment is limited to members of the junior class for the following reasons. (1) It is hoped the experience will motivate the student so that he will utilize to the fullest extent the one year of high school remaining for him. (2) The influence of these individuals in their home school should increase interest in mathematics and science and stimulate their classmates to do better work. (3) These boys help in publicizing the program and arousing interest in following institutes.

Enrollment of high school students in science and advanced mathematics courses with a subsequent good scholastic record in those fields may reduce the time requirement for college graduation from Oklahoma State University by as much as one semester. Students entering with good grades in advanced algebra and trigonometry need not repeat these courses but are enrolled directly in Analytical Geometry and Calculus. The same situation prevails in chemistry.

Classes are conducted in mathematics, chemistry, physics and the various fields of engineering. The engineering presentation has evolved into a pattern of concentrating a given field on a certain day. Chemical engineering is a good example. The day starts with the "History and Development of Chemical Engineering," followed by sessions on "What a Chemical Engineer Studies," "Nuclear Engineering," "What a Chemical Engineer Does" and a tour through the chemical engineering laboratories. The evening session is devoted to "Industrial Opportunities for the Chemical Engineer."

Men from industry come to the campus to assist with the session on "What a Chemical Engineer Does" and the evening session on job opportunities. The industrial organizations of the state have been especially helpful with the program.

Once each week the group tours state industrial plants. Trips have been made to Continental Oil of Ponca City, Phillips Petroleum of Bartlesville, Douglas Aircraft Company, Public Service Company of Oklahoma, Commander Mills and Kerr Glass Factory of Tulsa, and Tinker Air Force Base and Southwestern Bell of Oklahoma City. Last summer the group visited the Oklahoma Semi-Centennial Exposition.

Aptitude tests are given the first week, by the University Psychological Testing Bureau and the results explained to the boys at a later session. Results of these tests are not conclusive. However, low marks serve as a warning that the individual should consider very seriously before deciding on an engineering career.

Recreation is a necessary part of life. Time is allotted and facilities provided for the institute enrollees to participate in various recreational activities. The period from 4:30 to 7:30 p.m. each day is free time. The boys may swim in the university pool, play tennis on the university courts or bowl and play snooker in the air-conditioned student union. One Saturday afternoon they are taken by bus to the Country Club where swimming, boating and dancing may be enjoyed. The other Saturday they are taken to Lake Carl Blackwell for swimming and water skiing. Ski

instructors are provided for the beginners. The Saturday afternoon sessions are terminated by a Clay Potts Barbecue.

A true evaluation of the results of the program can be made only by periodic check ups to learn what happens to institute students. Annual contacts are made with as many of the enrollees as possible and data filed. It is interesting to note that in each of the first two groups, one or two boys have decided, because of information obtained at the institute, that they were not inclined toward an engineering career. We think this is just as valuable as learning that he does want to enter the engineering profession.

The program has not been in operation long enough to make conclusive statements based on the data obtained. Information received to date is given below.

1955 Class — 40 in number — 9 from out of state

Thirty-nine enrolled in college, 1 enlisted in the Air Force. One is majoring in Psychology, 1 in Architecture, 1 in Dentistry and 2 in Medicine. The other 34 are majoring in Mathematics, Chemistry, Physics or some phase of Engineering.

1956 Class — 44 in number — 10 from out of state

Thirty-one are known to have entered college while 2 chose to complete their military obligation first. These two are now pre-enrolled for the second semester at Oklahoma State University. Two of this group received scholarships to Massachusetts Institute of Technology and 1 each to Harvard, Purdue, and Reed College, Portland, Oregon. One received a cooperating Fellowship to study at New Mexico State College and work half-time at the White Sand Proving Grounds. One is known to be studying Psychiatry. The others on whom information has been received are enrolled in Mathematics, Physics, Chemistry, or Engineering.

The 1957 Class is of course still in high school. As Director of the program, I can state that it is a very enjoyable experience to work with such a grand group of boys.
