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SECONDARY SCIENCE TRAINING PROGRAM
ENRICHMENT FOR HIGH SCHOOL STUDENTS (1973)

University credit for non-graduates

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University of Iowa

We live in an environment where the success of many educational programs are directly proportional to the amount of external funds appropriated. When federal funding for a program dries up, unfortunately, the program may come to an end. This end is in sight for many of the Secondary Science Training Programs sponsored by the National Science Foundation throughout the nation. However, at the University of Iowa, the SSTP programs are in the process of expanding beyond a firm foundation. As Dr. Robert E. Yager, Director of SSTP, has said, "We are more active and vital than ever."

The University of Iowa's SSTP is in its fourteenth year and its third year without National Science Foundation funding. The NSF is now giving preference to small liberal arts colleges in awarding grants for SSTP since they usually do not qualify for other science education grants. In the past, the University of Iowa has provided enriching experiences in the science and mathematics for over 3,000 high ability students. Last summer, there were slightly less than two hundred students in six programs. In addition, for the first time the SSTP programs have been expanded to include the social sciences. A new program, "A Look at Man," will be available for students interested in "Why people behave as they do?" This summer, twelve six-week programs are available for eligible students.

The pre-college student programs at the University of Iowa which provide the participants university credit include three primary areas. These areas are the environmental sciences, research, and course-centered programs.

The environmental programs are designed for providing greater awareness of problems and suggested action modes which are deemed important if not vital to the future of our planet. Each program emphasizes field research as well as focusing on techniques and processes used to detect, collect, and analyze environmental problems. The ultimate goal of the environmental programs is to formulate alternative solutions or identify

the necessary corrective action to be taken. Each program incorporates an extensive field excursion in order to emphasize these objectives and to facilitate student awareness of immediate environmental concerns. The four environmental programs include the Yellowstone, Rocky Mountain, Lake Michigan, and the Mississippi River Program.

A second area of emphasis is research. The Research Participation Program will provide at least seventy students with the opportunity to work on a research project in the research laboratories under the direction and with cooperation of University professors and their staff. The students will spend approximately eight hours a day, five days a week in the research laboratories. In addition, the student will prepare a paper describing his/her research efforts. The research projects include: Microbiology, Radiation Research, Radiology, Biochemistry, Internal Medicine, Dentistry, Engineering-Electrical and Chemical, Chemistry, Geology, and a host of others. Special seminars and a symposium will climax the six week research session.

Last but not least, the Course Centered Programs are designed to provide collegiate experiences in a wide variety of disciplines. These courses are not survey courses and do not represent typical introductory courses in college. Instead, the programs are designed to provide fascinating glimpses of these fields at the threshold of research and discovery. The programs include Molecular Biology, Astro-Physics, Field Geology, Chemistry, Computer Science, Behavioral Science and Archaeology.

The SSTP programs resemble graduate study because the students work together in small groups and are encouraged to think through problems they encounter. However, most of the students are between their junior and senior years in high school, although students having completed their sophomore or senior years are eligible for participation. The emphasis has been to involve juniors because it is hoped that the students will take back what they have learned to their respective high schools and communities. The ultimate effect will be to improve educational programs in the communities as well as to improve the local environment.

Additional information and/or applications concerning each program can be obtained by writing to: Edward L. Pizzini, SSTP Coordinator, Science Education Center, the University of Iowa, Iowa City, Iowa 52242.