student is not doing well, he has already been punished for poor attendance. On the other hand, if he is doing well despite poor attendance perhaps a re-evaluation of classroom procedures, materials and subject matter is necessary. The answer to improving attendance is not a simple one of limiting the number of cuts or reducing grades. The class must be so important in itself that failure to attend leaves a void in the student's academic life. Perhaps the following procedures will help to improve class attendance.

1. Motivate: At the beginning of each class take a minute or two to blend the last meeting into the present one. This gives students time to adjust to the classroom, the material, and you. While it may be time saving to jump squarely into the subject of the day, it leaves the students gasping for breath, with a helpless "I am behind" feeling. Take a tip from entertainers and warm-up the audience. The use of familiar terms and expressions tend to prepare the student for the more abstract.

2. Speak effectively: Follow good speaking practices, maintain eye contact, use personal experience, use gestures, vary voice, use the blackboard, and visual aids. These common practices are often neglected in the college classroom.

3. Discuss: Large classes do not lend themselves to discussion methods; yet we all realize that participation by students enhances the learning process. A question-answer session some time during the period gives the desired result without a large expenditure of time. The questions can often be turned into motivating forces and serve as a guideline to the thinking of the class.

4. Summarize: Use a summary at the end of each period. Keep check of the time and be prepared to stop five minutes before the end of the hour. Use this five minutes to summarize the most important phases of the lecture. Students may use this period as an opportunity to organize notes for later study. More important, it allows the student the opportunity of listening during the period, knowing he will have a chance to catch up during the summary.

5. Examine: Use the pop test: A short five or ten minute test at the beginning of a period does two things: encourages attendance and encourages preparation. The average student, despite all protestations, enjoys showing what he knows. The increase in attendance comes, of course, from fear of a low grade if the quizzes are missed; but the test is still a useful tool for improving class attendance.

In conclusion, worry less about class attendance and strive to make each class period one of such interest and importance that students hate to miss.

Education for Future Agriculturists

By

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Man's knowledge is increasing at such a rapid rate that the modern college professor has a great problem in making decisions as to what and how to teach the agricultural student of today.

It has been estimated by modern educators that if all man's knowledge and scientific advancement from the dawn of civilization to 1950 is given a value then the amount of knowledge accumulated between 1950 and 1961 has again increased by the same amount. It is estimated that another doubling of man's knowledge will take place between the years of 1962 and 1967.

Dr. Glenn T. Seaborg, Chairman of the U. S. Atomic Energy Commission stated that "The amount of scientific information published around the world every 24 hours would fill seven complete 24-volume sets of the *Encyclopedia Brittanica.* Reading around the clock from day to day, one man would need 460 years to read one year's output."

The modern agricultural curricula need to reflect the vastness of agriculture today; for agriculture involves suppliers to those in production, and involves the complex of marketing, processing, transportation and distribution. It also involves the important links of education, research conservation and technical services as well as the sociological and economic aspects of our population as stated by Professor Sledge of the University of Wisconsin.

The modern U. S. farmer of today produces food for himself and 33 other people. In Russia, as a contrast, one farmer produces food for himself and 1½ other people.

In order for agriculture in this country to supply all the food and services needed today and in the future, the modern agricultural curricula in college should, according to the University of Wisconsin, help students develop the ability to solve problems, to recognize basic problems, to identify alternatives; to seek and test for satisfactory solutions, and thereby to help them grow intellectually and mature emotionally. The General Education program at Fresno State College, with its requirements in the fields of social science, natural science, literature, philosophy, the Arts, Health and Physical Education, oral and written English, Psychology and mathematics is designed to help students achieve the objectives of the above requirements.

The agricultural curricula should help prepare students for entry into technical, scientific or professional phases of modern agriculture and serve as a *fundamental background* for subsequent intellectual growth and professional advancement. This is done at Fresno State College where students may major in 11 different production areas or in one of the agribusiness fields or in a strictly science option in agriculture. The teaching of many courses has changed in recent years. For example in livestock judging courses, in the past the students would place the animals, the instructor would give the official placing and go on to the next class. In our modern judging courses, for evaluating meat animals, the students place the live animals, estimate the size of the rib eye, the thickness of fat over the rib, the percent of pelvic and heart fat, the percent of retail cuts, the federal grade and the dressing percentage. The animals are then slaughtered by the meats class and all the above information gathered so the judging students can learn how to evaluate completely the meat animal.

At Fresno State College this modern approach to judging for teaching animal evaluation has been well received by the students.

The students should be taught an organized curricula making a cohesive program which is a combination of natural science, social science, humanities and technical and pro-

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The new Direction in Agriculture at the Agricultural and Technical Colleges of New York State

by

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In a recent publication of the Agricultural Research Service of the U.S.D.A., "Some Training and Services Needed in Agriculture", a section was devoted to what will be necessary in meeting the farmer's needs in the future. The following quotation is from that publication.

> There will be (further) changes in the rural social structure. The farm businessman will operate more like any other businessman. With the further decline in farm labor inputs, the occupational status of farm workers is expected to improve because the degree of skills required for the reduced labor needs will command higher pay. Differences between rural living and urban living will narrow decidedly. The farm family will require more of the services demanded by families in the urban and metropolitan areas for every day living.
>
> More knowledge will be required in farm operations as changes occur in farm patterns, production techniques, processing requirements and marketing methods. Training will be needed by farmers who perform many jobs on the farm and by educational leaders and research workers; by persons who live off the farm but work on the farm as needed; and by persons engaged in agricultural occupations performed off the farm. In all cases, the farm operators will need to know how to use the latest developments to best advantage.

In keeping with the above, a revolution is underway in the agricultural divisions of the New York State Agricultural and Technical Colleges in the State of New York. Its objectives are to update student instruction to meet the demands of our changing society in agriculture and its related service fields; and to provide a comprehensive program which includes curriculums in technical, vocational, extension, and transfer services for anyone who has the interest, ability, and need for such training.

Every two-year college has made major curricular revisions in its technical programs to meet the changing needs of agriculture. Agricultural practices learned in college are frequently outdated within a few years. Consequently, the colleges today are stressing overall basic principles and fundamentals, emphasizing flexibility and adaptability in order to help the graduate in many varied situations.

A related trend in the technical programs is career flexibility, which helps the student who changes his occupational goals. More emphasis is being given to basic sciences, communications, humanities, and agricultural business. Curriculums are being planned for the individual student, based on his career needs, through the use of faculty advisors and programs which allow for elective courses.

With the comprehensive program underway at the two-year agricultural and technical colleges, it will be possible to meet the needs of many more persons interested in agriculture and its numerous related career areas. At Delhi, for example, a number of new technical programs are being offered and proposed, such as laboratory animal science, plant science (turf management) resource development, environmental sanitation, food science and recreation.

All the colleges are already offering vocational programs to provide career opportunities for area people 18 years of age or older. These are courses which will emphasize the skills aspect of training, and will require full-time attendance for periods of up to one year in length. Vocational courses are being held in off-campus centers or in campus facilities which are usually in addition to those used by the technical programs. As an example of this type of program, Delhi College is offering a 15-week course in farriery, starting in March of 1967. Facilities are rented and will be renovated and equipped for this purpose. This will provide the training and skills needed for those interested in shoeing and foot correction for race track work. Others may wish to supplement their farm income by part-time work, and some may wish to serve the pleasure horse group.

Extension courses are also being offered those persons in need of re-training or up-grading on the job. Again, this is being done in off-campus centers as well as on the college campuses. Delhi College has recently conducted a 12-week off-campus program for the training of laboratory animal caretakers, junior grade. These courses were held in Buffalo, Rochester, Syracuse, and Albany, to serve the industry of the area. Each course was held one night per week, 2½ hours per night, for a 12-week period. Nearly 200 students were trained in this program. Another such program has been requested by the same group for senior level laboratory animal caretakers. State University has indicated support for the total comprehensive program. Federal aid has supplemented the need for additional instructional equipment and personnel through the State University Research Center.

With major programs in technical, vocational, extension, and transfer services, curriculums are being provided which not only will train for the needs of industry but also will meet the interest and academic levels of many more of those persons seeking an occupational place in our society. In addition, counseling centers with adequate testing facilities and personnel are being planned for all the agricultural and technical colleges in New York. This will make for more realistic curriculum counseling and placement direction of students and graduates.

Each member of the faculty of the agricultural and technical colleges of New York, be he a teacher or an administrator, has the tremendous responsibility of making sure that programs of instruction, course outlines and lesson plans are kept up-to-date and modern in every sense of the word. In discharging this responsibility, he will be heading in the new direction in agriculture at the agricultural and technical colleges, namely, to train the student to learn to adjust to his everchanging environment by adapting learned basic skills and principles to meet the demands of a growing and changing society.

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fessional courses, thus enabling them to adapt to future socio-economic, scientific and technical changes ahead and helping our future agriculturists develop an appreciation of life and the responsibilities of a citizen in communicating and working effectively with others. All of these stated principles are objectives of the school of agriculture at Fresno State College.