In recent years it has become increasingly apparent that the trend of man destroying nature must be reversed: comprehensive nationwide instructional programs introducing students to the fundamental issues associated with man living harmoniously in his environment are needed. In response to this need, a modularized environmental course was developed and slated to be televised during a 15-week semester in connection with Miami-Dade Junior College. The components of the course as a televised learning system included two 30-minute telecasts per week, a study guide, an instructional communication and feedback system called Teaching Information Processing System (TIPS), an open phone format program over radio, midterm and final examinations, and a textbook designed to support the program. Varied formats were also planned for the program, and some emphasis was placed on enrolling and identifying certain groups to take the course—school teachers and Girl Scout leaders, for example. Specific goals for the project were established, and plans devised for providing support for continual development of new curricula. (RH)
AN OVERVIEW OF THE SCOPE AND A DESCRIPTION OF THE COMPONENTS OF

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

MAN AND ENVIRONMENT

TELEVISION LEARNING SYSTEM

Miami-Dade Junior College
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In recent years it has become increasingly apparent that man is seriously damaging the environment. The uncontrolled use of natural resources, increased urbanization and the general awareness that the quality of life is deteriorating, while material comforts increase, have brought about urgent and unprecedented concern. In essence, the quality of the environment in our nation is rapidly decreasing.

Major efforts are now required to reverse the trend of man destroying nature. Comprehensive nationwide instructional programs introducing students to the fundamental issues associated with man living harmoniously in his environment are needed.

The Initial Step

A nationwide effort on the part of community junior colleges to meet the environmental crisis was begun over a year ago. A general education interdisciplinary course, Man and Environment, was first developed at a five-day workshop held in Denver, Colorado, in May of 1970. The workshop was attended by representatives from community colleges across the country. During this workshop, the content of the course, its objectives, and its modular format were conceived. In addition, each module was individually developed to the point of presenting a general description of its content, a specific statement of its objectives, and a detailed outline of the modular component.

Continual Development

In November, 1970, a second four-day workshop was held in Las Vegas, Nevada to revise and expand the original course. During these sessions, the
order in which the modules had originally been established was revised, several modules were renamed, the objectives of all the modules were considerably revised, new material was added, and the content of each module was more completely defined and restructured. Bibliographies were also developed for each module. The modular arrangement for the Man and Environment course was adapted to facilitate instructional experimentation within institutions, as well as permit greater flexibility in planning the exchange of materials.

Miami-Dade Junior College assumed a leadership role in bringing institutions together and in providing the initial guidance for the planning of the course. The development of this course, Man and Environment, attracted considerable nation-wide attention. After the publication of the Curriculum Guide, Miami-Dade Junior College received inquiries from over two hundred and fifty institutions of higher education, expressing a desire to participate in the further refinement and implementation of the one-year adisciplinary course in environmental education. A substantial number of colleges throughout the nation have joined in this curriculum building project.

THE ROLE OF GENERAL EDUCATION

Development of an individual's capacity to live effectively--a foremost goal of education--has recently acquired new implications for man as he struggles to relate positively with the environment. It is essential to the continuation of mankind that a broad base of informed citizens be cultivated, so that meaningful action and decisions can be made which will lead to improving the quality of life. No greater task faces education in the seventies than to develop that base of knowledgeable individuals in order to help man protect and live in harmony with his environment.
TELEVISION LEARNING SYSTEM

Commencing with the Winter Term, January, 1972, a televised environmental course, Man and Environment, will launch Miami-Dade Junior College's new TV College. The general education three credit course will be offered on open circuit in color through WPBT-TV Channel 2, 7:00 to 7:30 p.m., on Monday and Wednesday during the fifteen week semester. The topics to be covered during the first semester are as follows:

- Ecological Imperatives
- The Nature of Man
- Air Pollution
- Water - Supply, Demand and Pollution
- Scenic Pollution/Solid Waste
- Sound Pollution
- Conservation of Vital Resources
- Earth as an Energy System
- Population Dynamics
- Urbanization
- Food and Drug Pollution
- Value Systems
- Concepts of Change
- Individual Involvement
- Responsibility to Future Generations

COMPONENTS OF THE TELEVISION LEARNING SYSTEM

TELECASTS

There will be two 30 minute color telecasts per week. The first, a documentary type, will present the major concepts for the week's topic in highly visual form. It will aim at motivating the student to learn more about the topic. The second telecast will generally present a panel of well informed and involved local persons. They will discuss the topic of the week and relate it to the local environment and local problems.

STUDY GUIDE

A Study Guide has been developed as an integral part of the learning system. The following elements are included in this 300 page document:
- Assignments and directions for use of the various components of the system.
- A statement of objectives and important concepts for each module.
- Supplemental readings to add detail information on important topics.
- Programmed learning exercises.
- Diagrams and illustrations.
- A section on each module concerning activities that the student can take part in now.

**INSTRUCTIONAL MONITORING SYSTEM - TIPS**

An instructional communication and feedback system called TIPS, Teaching Information Processing System, will be used for all credit students in order to periodically assess student progress and comprehension of the major concepts of the course. The TIPS system is non-graded and it is designed only to benefit students, not to penalize them. At the conclusion of every module, students will be requested to return their non-graded TIPS surveys immediately to Miami-Dade Junior College. Report forms will in turn be mailed to students conveying the progress being made in the course. In addition, various learning prescriptions will be incorporated into the student report form. These learning prescriptions are designed to maximize learning for a wide ability range of students and are keyed to each major concept.

**RADIO ENRICHMENT PROGRAM**

An open phone format program is designed to be used over non-commercial FM radio. The format of the program will be varied, but, in general, will include knowledgeable individuals and faculty reacting to questions concerning the TV course. The open phone format system should allow a large number of people to have questions answered by means of listening to the exchange between
those at home and those in the radio studio. The radio format is also designed to provide further focusing and discussion on the major concepts of the course.

**ON-CAMPUS ACTIVITIES**

TV students are required to come to the campus only twice during a semester—once for a mid-term examination, and again for the final examination. Special arrangements are available for students physically unable to travel to the campus. Other optional campus activities are scheduled to supplement the televised instruction or to provide academic consultation. Students, whether registered for only one TV course or taking other on-campus courses, as well, enjoy all student privileges. They have access to the library, to the services of the guidance and counseling departments, to the College's cultural events and Lyceum productions, and to all other student activities.

**TEXTBOOK**

At least one publisher, Prentice-Hall, is publishing textbooks specifically designed to support the Man and Environment program. The two volume series (one for each semester) has been written previously by the community college faculty members from appropriate disciplines. The books will be available in early 1972, however a preliminary edition will be published in December 1971.
VARIABLE USE OF TELEVISION INSTRUCTION

The television learning program, Man and Environment, is envisioned to be used in variable formats. The following examples of use are planned at Miami-Dade Junior College for the Winter term of 1971-72:

- The television learning program is open to any regular Miami-Dade Junior College student and may be taken for credit singularly or in combination with other on-campus courses. A regular credit student enrolled in this program will utilize all of the components of the system.

- The television programs are available for viewing at the regularly scheduled time on any of the campuses. This service is provided to allow students who might have classes just before the TV program, or immediately afterward, to continue with the schedule of on-campus classes.

- Students may register for the Man and Environment course at a reduced fee for non-credit, purchase the textbook and have the Study Guide provided. Such students will not have access to the TIPS service. Students initially enrolling for non-credit have the option of changing to credit status during the semester.

- Special arrangements are available for group enrollments by clubs, civic organizations, and other special interest groups for non-credit enrollment. To supplement the learning process for groups, group leaders will be provided to meet with various clubs in the community to highlight and focus on the concepts of the television course. Groups wishing to enroll for non-credit can do so at a re-
duced individual rate.

- The modular format of the course allows any faculty member to use any one of the TV programs, either the documentary or localized program, as well as any other course materials as part of a regular on-campus course.

- The TV programs will be required viewing for students enrolling in the course at the Downtown Campus. They will also have two group sessions on campus.

SPECIFIC GROUP ENROLLMENTS

Miami-Dade Junior College, in conjunction with its first venture into TV College, has enrolled and identified certain groups of individuals who will take the course and participate in the instructional program in different ways. Examples of these enrollments are as follows:

- **Dade County Public Schoolteachers**

  A significant number of the elementary and secondary schoolteachers of Dade County will be participating in the Man and Environment television course. The objective is for the teachers to gain a basic understanding of the concepts of man and environment so that they, in turn, may convey these in their own instructional programs to their students. The teachers will view the course in their own individual schools through the local educational channel in the school system. The course will be aired at prescribed times during the day for teachers to view during their free periods. Special group sessions
will be conducted and will be keyed to instructional materials available to the teachers. They will receive Professional Improvement Program (PIP) credit for renewal of certification for teachers in the State of Florida.

- **Girl Scout Leadership Program**

A series of Girl Scout leaders in Dade County will register as a group for the course. The Girl Scout leaders have as their objective gaining the basic understanding of the concepts of the environment so that they may use these in their programs working with Girl Scouts.

- **Jail Program**

Miami-Dade Junior College will be working closely with penal institutions in the South Florida area and presenting college credit, by means of TV instruction, for individuals confined.

- **Council on Continued Education of Women**

A number of community organizations and clubs, through the efforts of the Council for the Continuing Education of Women, will participate in the course, both on a credit and a non-credit basis. The programs will be designed to help the organization identify important action programs which they can undertake.
ENVIRONMENTAL EDUCATION GOAL

The over-all goal of the Man and Environment project is to have a wide segment of the nation's population understand man's interdependence with nature and assume responsible attitudes that will lead to quality decisions concerning the environment. The project is planned to be a comprehensive approach to cultivating an ever-increasing broad base of informed citizens in the United States on the basic concepts dealing with man living in concert with the environment. The end result should be a better life for all of us.

The specific goals established for the national development of the Man and Environment course are as follows:

- To bring together key people from governmental agencies, business and industry, educational institutions, as well as private citizens and students in the development of educational programs concerning the environment.
- To bring basic education relating to man and environment to every college student in the nation.
- To demonstrate the use of environmental education as a part of the general educational requirements in higher education.
- To make basic environmental education available to adults and high-school students.
- To establish a base of informed citizens who will exert a positive impact on environmental decision-making at local, state and national levels.

To insure that the goals of the project would be met, the following plans were devised to support the development of the Man and Environment curricula:
- Established a nation-wide organizational framework for the cooperative development of a general education course and environmental career programs.
- Established a mechanism for the regular exchange of plans, materials, and instructional strategies concerning environmental education.
- Developed and implemented a program of faculty training for the teaching of the adisciplinary course, Man and Environment.
- Established a communications apparatus for continued development of these programs.
- Adapt the general education course, Man and Environment, to an open-circuit television format for use in at least five major cities.

INTERINSTITUTIONAL COOPERATION

The economics of the Man and Environment TV course organization depends on large numbers of students utilizing the system, so that the large developmental cost can be spread over sufficient number of persons to make the unit delivery cost practical. This means that materials developed in this way by one institution must be shared with other institutions, who, in turn, must help offset the developmental cost.

Miami-Dade Junior College intends to place any money that is received from other institutions using these programs into a fund to be used to develop new programs. The institution further intends to acquire programs from other institutions on a similar basis. Cooperative efforts on development will also be considered. In this way, a bank of quality programs could be developed and acquired by cooperating institutions which could not be developed by any in-
stitution on its own.

REPLICABILITY

The ability to replicate the course is a primary goal of Miami-Dade Junior College's television instructional program. It is now possible for any institution in the United States to obtain a copy of the Curriculum Guide for the Man and Environment course developed to date, and to use it as it suits their needs. The Curriculum Guide, Bibliography, Study Guide, Textbooks and other support materials are in various stages of development which will supplement the basic concepts of the course. Because the course is designed in modular form, any institution has the option of using some or all of the modules in their present form, or adapting variations of the modules for their own specific needs. This feature is particularly important with regard to the television programs.

MAN AND ENVIRONMENT BIBLIOGRAPHY

A bibliography supporting each of the modules was developed during the initial design of the Man and Environment course and was later published by the National Association for Environmental Education. The bibliography is available as an aid to faculty and can be purchased for $2.00 from the National Association for Environmental Education, or through any campus bookstore of Miami-Dade Junior College.