

# 'Engineering And Society' To Dispel A Myth

The myth that our society is plagued by technology for technology's sake has been a painful thorn in the side for engineers and scientists. The College of Engineering will offer a course next fall that will seek to dispel that myth through education and understanding.

The course, Engineering 301, "Engineering and Society," will be tuned to the non-technical ear of the student engaged in the humanities, and Dr. Richard E. Thomas and Dr. T. J. Kozik of the College of Engineering stress that the course will not try to make engineers out of liberal arts students.

"They will not even have to look at an equation," Dr. Thomas said. "What we will do is present the case for engineering and technology through a series of case studies from which the students

will hopefully understand the details of the technology-society interfaces.

"The course will also include an examination of the influence of private and public policies in shaping technology and, through it, society," he continued. "We will try to show the students that engineers and scientists are more than quiet men buried in a world of slide rules and math. We will try to show the students that the engineer and scientist is human, that he cares about the well-being of mankind, and through his efforts, life is improved."

Dr. Kozik said the course will provide background to the student in technology assessment, the fairly recent practice in the scientific and engineering community of studying what effects would result from a new system or device before it is created.

"Thirty years ago," he said, "if someone wanted to build a dam, they built it. Now, in-depth studies are made by the engineer and scientist on the effects the dam would have on the environment and life structure before a single scoop of earth is removed."

Dr. Kozik said that technological assessment had evolved to a very crude but rigorous art, and that more efficient methods were being found to integrate different opinions from different sources and foreseen long-range effects of proposed projects.

"Technological assessment doesn't necessarily mean anything will be done," he said. "Even politicians have assessment teams

working for them, but advice from these teams is not binding in the decision-making process."

The new engineering course is a revision of a course by the same name and number. The first course, according to Dr. Kozik, was on a defensive posture.

"We wanted to present the terminology of the engineering and scientific world so that those who criticize technology could do so intelligently. What the revised course will do is show the humanist how he and the technologist can work together to improve our way of life."

"Engineering students take sociology, political science and other humanities courses," Dr. Thom-

as pointed out, "so they are exposed to the humanist point of view. We feel the problem between the scientific world and the humanist is the lack of exposure of the humanist to the engineering point of view."

"This course will enable humanities students to see our viewpoint," he continued, "and will enable students from both disciplines to talk to each other concerning problems within our technological society in a knowledgeable manner."

"The course will also take a philosophical posture," Dr. Thomas said. "The humanities should be concerned with all phases of the quality of life, but not one from

that area of study has approached us to find out what we as engineers and scientists are doing with the quality of life. Their viewpoint is restricted to hearsay and sensationalism. We hope this course will show to them that we do care about life, and that our efforts are directed entirely to sustaining life in an improving manner."

The non-technical course will use histories of nuclear power plants, computers and privacy, the SST, the Wired City and student-selected topics to bring to light the role of research in determining the nature of technological advances.

Two major variations from normal course format are planned in the presentation of the course. First, the classroom presentations will include talks by experts in several specialty fields of technology.

Second, student involvement in oral presentations will be promoted through team debates. The teams formed from the class will be allotted time to research a given topic and to prepare their arguments. The class, after listening to the arguments, will be

challenged to select a course of action related to the debate.

The course, intended for juniors and seniors majoring in areas outside engineering, holds special importance in a clear understanding of the factors which shape technological process with special concern for individual and institutional roles, and the importance and difficulty in prediction of short and long term societal reactions and the need for joint action by technologists and humanists.

Dr. Thomas said the course would be a learning process for student and professor alike. Plans for enlarging the course to a two or three semester course of study will develop from the interest shown for the first course.

"We want to know what the non-technical student is thinking," he said, "and we want to know what he hopes to gain from a course such as this. We do not want to talk over his head, we want to inform him of our position on technology and hope he will use this information to make his judgments and decisions about technology in a more mature, educated manner."

## Crusade Begins For 'Zoom'

BOSTON (AP)—Public broadcasting has launched a nationwide "Children's Crusade" to build a constituency to save "Zoom," billed as America's only television show written and performed entirely by children.

The crusade was extended to Public Broadcasting System — PBS — television stations nationally this week after a 10-day appeal in six New England states which drew 30,000 cards and letters.

"Zoom," a 30-minute, daily program completing its second year on most of the 230 Public Broad-

casting System television stations, is facing a cutback in funds from the Corporation for Public Broadcasting. This left "Zoom's" sponsors \$1.8 million shy of the funds necessary to produce a full 52-show season this year.

"We know we are going to have to go to the corporations and foundations for that kind of money," said John Kerr, a fundraiser at WGBH in Boston, the station which produces "Zoom."

But before help is sought, Kerr says, public broadcasting is going to the people the program serves: children aged 6 to 12 and their

parents. "We're going to try to get tangible evidence of our public's support," Kerr says.

Ten days ago, WGBH broadcast a "Zoom Alarm" saying the program was in danger and asking for photographs and letters of support from New England children and their parents. Through last Friday, Kerr said, 30,000 have arrived.

The sponsors said appeals for "Zoom" would begin Monday or Tuesday in New York and Chicago, later in the week in most other metropolitan areas and in following weeks on stations outside large metropolitan areas.

"Zoom" uses Boston-area children aged 9 to 12 as performers. The children spend 22 weeks on the show and then are replaced.

The performers get their parts at auditions mainly on the basis of their "flexibility and an ability to get along with other children," said Cheryl Bibbs, the program's talent coordinator.

They spend 13 hours a week at the studio. Miss Bibbs said the show might take up time the children would otherwise use for studying, but said: "We think it helps them in school. They become more interested in school because their artistic and special abilities are brought out by participating."

All material used is submitted by children. It ranges from corny jokes ("This is my nose. How do you spell it? I-T, silly.") to home movies showing children at work or play around the country.

The "Zoomers," as the show's stars are known, produce a play each week and often give excerpts from other productions, all of which are mailed in by their peers across the country.

Party games are exhibited, poems are read, stunts are performed and lifestyles of children in different areas of the country are depicted, Miss Bibbs said.

"It's an exchange of American cultures and the things that children do," she said, adding that it was the only PBS program geared to elementary-aged school children.

## FDA Recalls Frozen Foods Feared Containing Botulism

WASHINGTON (AP)—The Food and Drug Administration Monday night said Stouffers Food Co. was recalling some frozen foods that could contain mushrooms contaminated with botulism toxin.

Earlier Monday, the FDA announced a recall in Michigan of frozen pizzas made by a firm which received canned mushrooms from a lot known to be contaminated with the bacteria.

In a statement, the agency said: "Stouffers continues to recall four products that could contain mushrooms from the United Canning Corp. These products are frozen green beans and mushrooms, frozen escalloped chicken and noodles, frozen tuna noodle casserole and frozen cream of mushroom soup."

"Stouffers expects to complete their recall by the end of Tuesday."

"FDA has no evidence that any of these Stouffers' products

are contaminated, but on the basis of present knowledge all must be considered suspect."

"FDA and Stouffer urges persons who have purchased any of these products since Feb. 7, to return them to the stores where they were purchased."

The spokesman said Stouffers had received mushrooms from known contaminated lots distributed by United Canning of East Palestine, Ohio.

But the spokesman said he did not know where the Stouffers frozen foods had been distributed. He said their recall had been underway since Friday. The Stouffer plant which received the mushrooms is located in Solon, Ohio.

The spokesman said Stouffers has contacted two-thirds of the outlets handling the escalloped chicken and noodles and the tuna noodle casserole but he said there was no information on the other two products.

## Science Provides Insight, Say SCONA Speakers

Science is providing mankind more and more insight into man's psychological and biological influences, scientists Jack L. Michael and Paul Saltman agreed here Friday.

Further developments will make it possible to reduce birth defects, biochemically select a baby's sex and the color of its skin and hair, treat diabetes so the body produces required insulin or have "100 Picassos, 100 Einsteins or 100 Charles Mansons," reported Saltman.

"The technology is sticky, but the possibility is approaching," he told 166 delegates to the 18th Student Conference on National Affairs.

"Knowledge of how to make biological modifications has produced some tight sphincters, because people are worried it might fall into the wrong hands," added the University of California at San Diego vice president and biochemist.

Michael, psychology professor at Western Michigan University, said developments of the last 30 years have made behavior modification possible, to the point that "government agencies are becoming increasingly sophisticated in their use."

"We have the technology for controlling behavior, and understand variables enough to do it on a limited basis," he said. But it is unpopular for a number of reasons, primarily because "people cherish personal responsibility and individual freedoms. Any restraints on choices are considered morally wrong, in fact, democratic."

Michael said implications for SCONA XVIII is that refusal to control conditions leads to "chaotically developed controls."

Saltman indicated there are no pat answers, "except to challenge you to fully develop your intel-

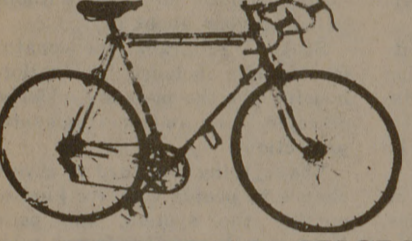
ligence so you may question every act of faith. Dogma prohibits search, and limits what man can learn about himself."

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On December 7th, the Civil Aeronautics Board Abolished Youth Fares.  
Please cut out and mail the letter below to let Congress know where we stand and that proper legislation is in order to correct this injustice now!

# ACT NOW

Dear Congressman:

Please take action to save the Youth Fares and Discount Fares which have recently been abolished by the Civil Aeronautics Board.

I would appreciate it if you would also write the CAB and request that they delay enforcement of this decision until Congress has an opportunity to act on this important question.

Some 5-million students traveled using this discount fare in the past year. This contributed over \$400-million to cover fixed costs of the airlines. These carriers can be presumed to have a full grasp of the marketing considerations involved and are, at least, as interested as the CAB in dropping any useless discount fares. Yet, an overwhelming majority of the airlines who participated in the CAB investigation are in favor of these fares.

Millions of students have purchased their Youth Fare identification cards with the belief that the cards would be valid until their 22nd birthday. Now the cards are being abruptly cut off by the CAB's decision.

As one of millions of young voters, I respectfully request that you act to pass legislation that will allow the CAB to discriminate on the basis of age by keeping Youth Fares. I will be anxiously awaiting the results of the coming legislation concerning this matter.

Mail to:

**CRADF**  
(Coalition To Retain Air Discount Fares)  
413 East Capitol Street, S.E.  
Washington, DC 20003

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