

Curriculum Change Developed By Galanti And Eisenberg

by Jim Gormley

Two Highacres engineering teachers have introduced a curriculum change for associate degree engineering students.

The education innovation was developed by Mr. Eliot Eisenberg and Dr. Anthony Galanti, instructors of mechanical and chemical engineering. The subject, Mechanical Engineering 807 or Chemical Engineering 802, depending on the student's major, deals with fluid mechanics and heat transfer. More than 40 students are taking the new course, which is also offered to nuclear engineers. The course integrates concepts and principles common to the three programs and like many innovations has encountered its share of success and reversal.

Mechanical Engineering 807/Chemical Engineering 802 is the product of more than six months work, which is still proceeding as the subject is taught and refinements are made. One adjustment involved scheduling another class in the first week to accommodate almost twice the anticipated turnout. The unforeseen congestion is both a consequence and cause of the course.

"The need to combine discrete segments... 'globs'... of material into something with applicability to other topics," as Dr. Gallanti puts it, "is what we were trying to achieve." This broadened applicability is seen by both professors as an extremely useful engineering tool. It is also a marketable one in a time of economic flux.

In addition Mr. Eisenberg focused on the need to upgrade the mechanical engineering technology program. "Program flexibility and quality had to be expanded," he said. "Mechanical engineers will be doing diverse work and the curriculum was limiting them." Mechanical engineers in the associate program will have more of an option in choosing an educational direction. While retaining the choice of drafting and design originally conceived for MET's, they can also move into more technical applications of engineering.

When asked if this interdisciplinary approach was an educational fad both stressed the value of the change. "We want to increase the students versatility," Dr. Galanti said. "That part of their education needs to be expanded." Picking up the same theme, Mr. Eisenberg emphasized the newly minted engineer "needs to know these applications exist and to have an open mind to his world and his work."

Out in the world changes are commonplace. One area experiencing change is the balance in the nation's universities research and development funds. While Dr. Galanti's characterization of financial support associated with the course development was a bit jaundiced both agreed it was moderate. "There is a taxpayer revolt in progress these days," Dr. Galanti noted. The 'revolt' will make courses like Fluids and Heat more attractive. Both Mr. Eisenberg and Dr. Galanti are optimistic other Penn State campuses will adopt their course and approach next fall.

Smoking

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The recommendations of University Council followed a study that began last December by a sub-committee which had gathered comments and opinions from students, faculty and staff.

The study reflected a growing concern about the comfort and health of the nonsmoking public and recognized that in an academic community faculty and students often become a captive group, especially in the classroom. While health of the individual was the main concern, the committee also studied the matter of safety, damage to property, custodial and maintenance problems, and visual appearance and personal comfort as it relates to smoking.

People

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Another possible consequence is that more programs will put limits on the number of students allowed to enter those fields. The nursing, law enforcement and pharmacy programs already have limits on a first come, first serve basis. The accounting major is facing similar limitations.

On a more basic level, available dorm space is limited. At present, 150 students are on a waiting list to get into the dorm. Parking originally looked as if it might become a problem since there were more cars than parking spaces. By the second week of classes however, the parking problem decreased. The over-crowding was attributed to students staying longer than usual in order to become reacquainted with friends, buy books or attend other activities, instead of rushing home.

Highacres is trying to alleviate many of these problems, though some problems at present cannot be solved. Part-time faculty had been hired in an attempt to relieve some of the excess amount of students. Attempts are still being made to improve registration though there will always be students who will not get their courses. The number of courses that can be offered are limited. Sophomores going to University Park have first priority since they must have certain courses before they can transfer to Main Campus. Also given priority are students in majors which require certain critical subjects in a particular order. Often a student may have to wait a term to pick up a nonessential course.

Some problems cannot, at present, be eliminated. Lack of facilities determine the number of students allowed in a particular major. Despite increased enrollment and tuition, University Park is short of funds. Since the state has limited its sponsorship of university buildings, it is becoming increasingly difficult

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