Faculty opinions differ on self-paced courses

Prospects for continuation and expansion of self-paced sub-
jects at the Institute seem good, accord-
ing to Professor Arthur Mattuck, chair-
man of the Undergraduate Mathematics Committee, in charge of
the freshman calculus program he set up in 1970. He told The Tech 
that he was satis-
ied with the self-paced ap-
proach for a variety of reasons. Teaching calculus, he feels, con-
sists to a large extent of teaching specific techniques. The testing 
system is designed to ensure that people taking the subject acquire 
"a certain minimum competence." This, he says, is a very good 
way of teaching freshmen on pass/fail, since otherwise students 
who had done poorly on all the hour tests might pass knowing 
nothing of the material covered. Since the problems on 
18.01-18.02 tests are com-
parable to those used before the 
self-paced system, the students taking calculus have to learn a good deal more than 
previously.

On the question of a self-paced system as a favorite idea of graffiti writers outside the undergraduate math office— Prof. Mattuck expressed doubts. The official response posted says, "Self-pacing can distort the enthusiasm of a course badly, and the Department is worried that this will happen with 18.03. In a self-paced course the exams are everything and it is virtually impossible to lecture on anything but straight exam material." In other words, the "general culture" aspect of the course, which the lecturers—Profs. Wan and Toomre—feel is important, could be lost, Mattuck feels that this would make it harder to be catering to the "lowest level" of student interest by reducing the subject to pure problem solving. Even as many want this, it is hoped the lectures will become more interesting during the term. Thus it seems that except for a few 18.03, the sections, differential equations will stay the way it is for a while.

The only problem that 18.01-18.02 faces at present seems to be a case of the dread Syndrome: poor attendance, and recitation attendance are all down from the fall. Some thought is being given to the 8.02 system of respiratory tests to be taken by certain dates, but Prof. Mattuck says he'll probably first try "steam warning tissues" to those who are behind. Alternatively, self-paced 18.02 might be restricted next year to students who had maintained a certain pace in 18.01. Other people, including those who had difficulty in self-paced 18.02, could take it the standard way.

The other large self-paced subjects are Physics 8.01-8.02. Professor Victor Weisskopf, head of the Physics Department, who lectures in 8.01, admitted that he had been unsatisfied with 8.01 this fall. There had been too many tests (eighteen), the course was not organized well, and a host of difficulties occurred, leading a detractor to label 8.01 "physics from a Saudi machine." In organizing 8.02 many of these problems were straightened out; for example, the number of tests was reduced to seven. Weisskopf sees the rise in lecture attendance as a possible consequence of the improvements made. He also hopes to increase student use of recitation sections for questions rather than just for taking tests.

Prof. Weisskopf makes the point that 8.02 is not self-paced in the true Keller Plan sense of a tutor working with 10-15 students. Rather, it is a lecture subject where people have "a certain latitude in when they take tests and do their homework." True self-pacing would be impractical on such a large scale, and it is not clear if it would in fact be more effective. 8.01 and 8.02 will probably be continued as they are now, with minor modifications.

The system seems to have been relatively effective in introducing people to the material. Since the subject matter in 17.00 is basically much more descriptive than 18.01 or 8.01, this represents the use of self-pacing in a different type of subject. There may soon be more subjects offered—among others there is a section of 17.21, Introduction to the American Political Process being given self-paced for the first time this spring.

Obviously the self-paced subjects which began as experiments in 1969 have been a general, though not履职alized, success with faculty as well as with students. It appears likely that the number of self-paced subjects will continue to grow, perhaps becoming a new element in the traditional cycle of change from small classes to lectures and back.