Three flexible scheduling plans were tried in order that firefighters could take regular college courses despite their 24 hours on the 24 off work schedule. Plan one scheduled the firefighters into a regular Monday-Wednesday-Friday class which they attended every other week, making up missed material outside of class. Plan two scheduled special 2-hour classes on every other Monday, Wednesday and Friday; and plan three scheduled firefighters into one Monday-Wednesday-Friday and one Tuesday-Thursday section of the same class on alternate weeks. Plan three drew the most favorable response from both students and teachers, as it provided a chance for the firefighters to take classes with regular students. If the number of firefighters desiring to take a particular class was sufficiently large and the class materials were adaptable, plan two was also regarded as useful. (MC)
FLEXIBLE SCHEDULING TO FIT THE FIREFIGHTERS

At Honolulu Community College various plans were tried so that the open door could extend to firefighters who have on-again, off-again duty hours far different from other students.

By Clarice Cox, Richard Miyashiro, Lionel Camara, Barbara Peterson and Grace Wong

How can you schedule firefighters for Monday-Wednesday-Friday three hour credit courses when men alternate duty hours twenty four hours on and twenty four off? Fire Science courses can be arranged, but what happens when the firefighters should join other students in general subjects like English and History? Chief Richard Miyashiro, Fire Science Coordinator, has tried three methods, the results of which are analysed by some of the faculty and students taking part:

Plan 1 - Attendance Monday-Wednesday-Friday one week in one hour sessions with the student missing class entirely the next week, making up the material with the help of the instructor, class logs and notes from other students.

Plan 2 - Attendance Monday-Wednesday-Friday in two hour sessions in a class made up only of firefighters with the entire class not attending alternate weeks.
Plan 3 - Attendance Monday-Wednesday-Friday in one hour sessions one week and alternating with Tuesday-Thursday one and a half hour sessions the alternate week. This plan was tried in History with classes composed all of firefighters and in English with a few firefighters shifting from one section to the next in a heterogeneous group including men and women from many areas.

Firefighters were asked to explain needs and evaluate schedules.

Most of the firefighters who attend Honolulu Community College are working toward a two year associate degree but some are interested in transfer courses. The most complete analysis of their reactions came from Fire Equipment Operator II Lionel Camara who played a dual role as instructor in Introduction to Fire Science as well as student under Plan 3 in both American Problems and Introduction to Humanities:

"Before scheduling classes for firemen a few things should be considered; their work schedule, the time available with their families and their attitude toward college classes.

"A city firefighter is not like the ordinary worker. He has very little time with his family due to his work schedule of 67.2 hours per week. If he is attending college, you may add another 24 hours a week which gives him a total of 77 hours per week to spend at home. Most other men, including policemen, have 128 hours at home. You can see why a firefighter will try to complete his schooling in the shortest possible time.

"Most students have a wide selection of courses. The firefighter has only those offered when his work schedule allows so he has little choice. The only way out of this dilemma is scheduling such as that tried at Honolulu Community College in Plans 1, 2, and 3. Instructors who allow such variations in scheduling give each man a choice rather than the necessity of fitting into any available course whether he is interested in it or not."

Asked how he felt about Plan 3 in which he participated both in the all firefighter group in American Problems and in the heterogeneous group in Introduction to Humanities, he stated,

"Very little need be lost even shifting from one section to the next, if the student is genuinely interested. We took advantage of
Material from class logs, discussion with outstanding fellow students and information from instructors during their office hours. We firefighters always pick up extra handouts from class to give to the men who are working when we are off, and we talk over class lectures and tours. I feel I have gained a lot."

Other firefighters echoed much of what he said. One said that politics and religion, tabu in a firehouse, were helpful subjects to study.

Instructors were asked to evaluate their classes.

Plan 1 was tried only in the spring of 1968 in a class in Introduction to Humanities, English 41, taught by Clarice Cox, with only one firefighter attending class one week and missing the next. A feature of this one-man experiment was copious use of class logs which Mrs. Cox requires:

"Students each write a class log one day a month, keeping assignments, lecture notes, handouts, blackboard or other illustrations, significant points made in discussion in extraordinary detail. With perhaps three students writing logs in each section each day there is a choice from several to staple together to have one lending log and one log on file in my office. I have done this for years so absentees can make up work more easily—and I can see student reaction to classroom presentation. In both Plan 1 and 3, firefighters have made copious use of the logs.

"In addition, even in spring, 1968, we had some slides and tapes to accompany the lectures. (Now in 1969 we have a minigrant under Title VII and are building more of a library of tape/slide presentations of lectures and tours that are a feature of this course.) The point I would like to make is that not even the best logs, supplemented by a disproportionate amount of time spent in office consultation between the student and me, took the place of regular attendance. We both felt it was an uneconomical use of student-instructor time, but next time A.V. materials would help."

Plan 2 was tried in the fall of 1968 by Grace Wong who taught Composition, English 10, to a class made up of only firefighters. Her evaluation follows:

"Because English Composition is a skills course which involves the necessity of remembering rules of grammar, punctuation and spelling while organizing and writing a theme, regularity in class attendance is a very important factor if student progress is to be steady. The experimental double period, every other week schedule, underlined the necessity of a regular schedule in which the follow through is consistent and constant."
"In separately derived evaluations, both instructor and students felt that although the class time fitted logically into their schedule the plan was better in theory than in practice. The subject matter and assignment did not seem to fit.

"During the week 'on' the students found themselves bogged down with writing assignments both in and out of class. Even when given assignments weeks in advance they were not always able to follow through as well as might be expected. One reason is that during the week 'off' the students found themselves trying to catch up with work in other classes that had been neglected the previous week when they were trying to keep up with English assignments. In addition, the absence of indirect or direct pressure exerted in the classroom may have contributed to a relaxed treatment of English composition.

"Definite signs of progress have been observed in the work of every student, nevertheless. Both instructor and students feel, however, that the amount of progress might have been greater under Plan 3.

"Taken as a whole and in spite of the difficulties mentioned above, the class has been a pleasure to work with because the students have been genuinely concerned about their individual progress. Their positive attitude and willingness to learn have certainly been assets to their learning achievements."

Plan 3 was tried in the spring of 1968 in American Problems, History 54, by Barbara Peterson and in Introduction to Humanities, English 41 by Clarice Cox. Perhaps these should be called Plan 3-A and Plan 3-B because Mrs. Peterson had the firefighters only in her classes, the sections alternating weekly as their fire watches changed, while Mrs. Cox had only a handful of firefighters alternating between sections which had fixed groups of students from Electronics, Police Science, Cosmetology and many other areas. Format was, however, the same, attending classes one hour Monday-Wednesday-Friday one week shifting to Tuesday-Thursday hour and a half periods the alternate week. Mrs. Peterson commented therefore not only on the class plan but on the situation of having firefighters only in both alternating sections:

"There are many advantages to this plan. A class geared only to firefighters can be taught at a higher level and accomplish more in a given unit of time. It can focus on historical topics in keeping with
their interests, personal experiences, maturity, and future goals. A class limited to firemen is somewhat 'grouped by ability' as well as vocation and can provide a stable, common pace to the instruction and learning situation.

"There are also disadvantages to what we can call Plan 3-A, firefighters only. Actually, it is an unnatural class experience. With everyone in the section of comparable age, occupational choice, family responsibilities, and short-run goals, there is little disparity in attitudes or prejudices. The typical college class in American History is an interesting cross section of the campus in background and attitude. The firemen would have benefitted from a well rounded frame of reference had this been possible.

"This special scheduling also prohibits them from really competing with other students, younger or older, in other majors. Only a limited degree of competitive drive exists between the firefighters; perhaps this is because they are used to working as a team or unit. They may be competitive within the firehouse but like a family they close ranks and support each other closely once outside the house. In a more natural, heterogeneous class situation, the firemen would probably emerge as the natural, competitive leaders, lending maturity and leadership.

"The homogeneous structure lends itself to vocational bias being voiced and left unchallenged. Because the class does not contain a cross section of the traditional political spectrum, discussions can become conservative and one-sided. Again, the single frame of reference is the error."

Mrs. Cox who taught Plan 3-B with firefighters alternating between two sections of classes of heterogeneous backgrounds agreed with Mrs. Peterson's observations:

"Firefighters, like policemen, add needed maturity and the disciplined approach of men in public service. They tend to pursue work farther than basic requirements, contribute more frequently to class discussions, ask discerning questions of guest speakers, accept chairmanship of class groups and exhibit more concern about their writing—especially if their work requires frequent reports.

"However, there are disadvantages to having students shift as these men did between sections 41-1 and 41-2 of English. This course, Introduction to Humanities, last term included seven lectures and six off campus trips. Lectures or trips during the one and a half hour sessions Tuesday-Thursday tended to take full time rather than the one hour taken when the other section met Monday-Wednesday-Friday. The Tuesday-Thursday section went more in depth, had more time to ask questions of the lecturer, more time to come and go visiting the Bishop Museum,
Academy of Arts, Honpa Hongwanji and Temple Emanu El. In a way, of course, the longer period had an advantage but the sections lost out on work done the other hour available to the one hour, three times a week group. It was harder than usual for the instructor to keep the various sections working on the same material at the same time. Classes always vary but the time change made these even more unequal.

"Firemen sometimes heard repeat lectures and even took double quizzes on occasions, but they also sometimes missed the summing up and correction sessions which are such a valuable part of learning. Of course, the accurate recording of class attendance which the administration requests is much more difficult for the instructor. When there were grouped activities within a class--such as for research projects--a group of eight might meet with all present one week and only half present the next. Students who were not firefighters had to accept this, too.

"To help keep the classes together, joint unit schedules of all classes were given to the men in each class. These schedules cover objectives, methods, text book requirements and give time of lectures and tours for all sections. This places the burden on the men themselves to fulfill requirements."

"As mentioned in Plan 1, logs of the class meetings--which are detailed and corrected versions of class notes--are kept on loan for makeup work. In addition, the minigrant mentioned uses money from Title III Curriculum Improvement Grant to develop a library of tape/slide presentations. The men can then work with these materials on their own at the Learning Resource Center directed by Ron Boyd. The material can be reviewed or repeated as well as viewed for the first time, in case a student has missed a class, a guest lecturer or a tour. This will be a time saver for the instructor who had on occasions repeated material for individuals who came to the office outside of class hours. These materials will also, of course, be available at the Learning Resource Center for the use of students from any major area who desire to preview, view or review English 41 materials."

Chief Miyashiro sums up the findings:

"The scheduling of general education classes to meet the changing shifts of the firefighters is a challenge to us all. After three semesters of experimentation and discussion with the different instructors involved we feel the best plan will depend upon such relevant points as the number of firefighters participating, the subject matter covered, the approach of the instructor to the material, and student-instructor rapport.

"If the number of firefighters participating is small and if the subject matter is a non-skill type, an instructor may be willing to accommodate these few men in a general class under Plan 3 or even Plan 1."
If the group is large and the subject matter involves skills development requiring good attendance, then Plan 2 may be the best. No doubt, the use of Plan 2 will require a longer review of subject matter previously covered since the class will be meeting after the lapse of a week.

"Scheduling of Fire Science subjects poses no problem. A part time instructor from the Honolulu Fire Department on one particular shift teaches firefighters on his shift Monday-Wednesday-Friday one week and Tuesday-Thursday of the second week. If the demand is good and the school budget permits, this is another plan worth considering with staff instructors teaching general education subjects to firefighters.

"The firefighters are grateful to the administration and the different instructors involved at Honolulu Community College for their cooperation and innovation in trying out Plans 1, 2, and 3."

Chief Miyashiro further summed up the feelings of the firefighters and the instructors, "We should not worry too much about the mechanics of the different plans. The important thing is to provide both technical and general instruction on an ongoing basis. There is a dire need for a continuing education for the firefighters to cope with the many complicated social, technological and occupational problems of our rapidly changing society."

The End