

and be the chief means of launching satellites. There is considerable speculation that an American condition for launching European operational satellites during this decade may be a prompt undertaking by Europe to shoulder a substantial part of the post-Apollo programme. The ESC is not yet in a position to give a firm answer to the United States on this subject. For one thing, the British Government has not completed its homework on the project. Soundings are expected from the Lefevre mission in Washington. A useful move by the German minister, Herr Leussink, last week was to propose that there should be senior British and French representation on the mission to Washington. These countries have most at stake on the launcher question. The remaining launcher countries last week were prepared to consider themselves disappointed that the new British Government was not promptly rejoining the "launcher club". It was left that if the US is not prepared to accommodate Europe's practical space ambitions for the next ten years, the British delegation would reconsider its position on supporting the Europa launcher.

ENGINEERING

Dropped Courses at Aberdeen

by our Education Correspondent

THE University of Aberdeen has decided, after a long and sometimes bitter wrangle, to drop its courses in electrical and mechanical engineering. The decision, which was announced by Mr E. M. Wright, the principal, at the half-yearly meeting of the University Council, has been taken not because of a lack of students, but in an effort to rationalize the provision of engineering courses in Aberdeen. It puts an end to the special, but at times tenuous, links between the University and its next door neighbour, the Robert Gordon's Institute of Technology.

In the past, the Robert Gordon's Institute has provided facilities for the University's electrical and mechanical engineering courses, but two years ago it set up courses of its own leading to the CNAA degree. It is this decision which has caused the University to think hard about its own courses, and it has decided to admit its last set of students for electrical engineering this year and for mechanical engineering next year. On the other hand, courses in civil engineering will be continued—the Jackson Chair of Engineering has in fact been renamed the Jackson Chair of Civil Engineering—and the University hopes to start up an "engineering science" course in the near future.

The reasoning behind the decision is that there is insufficient demand for engineering places to enable both the University degree courses and the CNAA courses to run side by side. Although that conclusion has been challenged, both inside the University and elsewhere, the Scottish Education Department, which controls the Robert Gordon's Institute, was unwilling to provide the Institute with resources to expand its own facilities while the CNAA and the University degree courses were running in competition with each other. By the same token, the University Grants Committee was reluctant to provide the University with funds to establish its own engineering facilities when the Robert Gordon's Institute was just down the road. The University has therefore decided to let

the Institute take over the facilities for its own courses.

In deciding to carry on with civil engineering, the University will not be treading on the Institute's toes, because so far it has not established any CNAA courses in that subject, but the position of the engineering sciences course is less clear. The course will include sufficient amounts of each engineering subject for its graduates to be accepted by the various engineering institutions. Whether or not the course will be sufficiently different from the Institute's CNAA courses to escape charges of duplication of resources remains to be seen, but, in any case, the UGC has not yet received a submission from Aberdeen for buildings to accommodate any new engineering course. It is therefore unlikely that there will be sufficient facilities to accommodate many engineering sciences students at least until 1975-76.

The Robert Gordon's Institute at present takes 86 full time undergraduate students from the University in electrical engineering and 48 in mechanical engineering, and these will, of course, finish their studies at the Institute. What will happen to the lecturers who are employed by the University but who are working at the Institute is, however, an open question.

PUBLIC HEALTH

Fluoridation without Fear

NEARLY half the local authorities in England have declared their opposition to putting fluoride in public water supplies: at the latest count the figure is 83 out of 186. Just how far their action flies in the face of medical evidence is made painfully clear by a new monograph published by the World Health Organization (*Fluorides and Human Health*, WHO, Geneva; £3). The monograph is basically a literature review intended to help public health authorities draw their own conclusions from as much evidence as possible, and it covers the whole range of research from sources of fluorine in the environment to the pathology of chronic overconsumption; but the contributors are hard pressed to find convincing hints of damage from the concentrations of the order of 1 p.p.m. that are recommended as supplements to water supplies. Indeed, in summing up the section on fluorides and general health, Dr A. E. Martin of the UK Department of Health and Social Security is able to conclude quite simply that, according to the surveys that have been made, the recommended concentrations have no harmful effects on the community.

The benefits, on the other hand, seem to go well beyond protection against tooth decay. In areas where the water contains fluoride, badly sited teeth and diseased gums tend to be a little less common; and there is some evidence that the incidence of atherosclerosis and senile osteoporosis is reduced. The editor of the monograph, Professor Y. Ericsson of the Karolinska Institutet in Stockholm, tackles the question of whether fluorine is an essential element and hints that the answer may well be "yes". For the formation of a tooth enamel that resists decay, the issue is clear; but "there are indications that traces of fluorine are necessary for normal mineralization, and possibly also for normal reproduction".

Those who object to fluoridation usually choose one of two principal lines of argument. The first, that the