

160. The Committee does not think it wise to lay down any rigid requirements as to subjects to be studied in the Sixth Form, but it holds very strongly the view that intending entrants for the engineering degree should spend at least one year in the Sixth Form after qualifying for University Entrance. Even during the second Sixth Form year the curriculum should not neglect the general cultural needs of the pupil.

161. Since mathematics plays a large and increasing part in the basic equipment of the engineer, a thorough grounding in this subject is essential. The Committee received some criticism of the present prescriptions in mathematics for both the University Entrance and the Entrance Scholarship Examinations. It was pointed out to the Committee that students in many of the better schools were taught more advanced mathematical processes than were required in either of these examinations, but that the relatively narrow prescriptions tended to discourage such advanced teaching and the development of courses that would provide a better foundation for the future engineer.

RECOMMENDATION—

That as the present prescriptions in mathematics for University Entrance and University Entrance Scholarships are too narrow, the University of New Zealand be strongly urged to broaden them.

162. Witnesses also suggested that there should be a much more rigid selection of students proposing to enter the engineering schools. Other witnesses, however, quoted cases of students who, though commencing badly, had developed into first-class engineers. The Committee is emphatically of opinion that everything possible should be done to maintain at the highest level the quality of the students coming forward for the engineering profession, and it would strongly oppose any lowering of degree standards in order to achieve the substantial increase in the average annual number of engineering graduates which appears to be necessary. If at any time it becomes desirable to limit the number of graduates, the Committee is of opinion that selection should be made at the end of the intermediate year. It is not sound economy to use the professional years as a means of selection. Then, too, students rejected at this early stage would be able to transfer to some other University course for which they were better suited, and would not sacrifice a year unnecessarily.

163. It is worth emphasizing at this stage that the time and efforts of University teachers of engineering should not be wasted on students of poor ability. The course in engineering is an exacting one, and should not be attempted except by able students.

RECOMMENDATION—

That if at any time further restriction is necessary, having regard to the number of engineering graduates which the Dominion can reasonably be expected to absorb, selection of students for this purpose be made at the end of the Engineering Intermediate Course.

(4) THE PROFESSIONAL YEARS

164. Neither of the schools of engineering is equipped or housed to a standard in keeping with the work they at present have to do or the demands that are likely to be made of them if the recommendations of the Committee are accepted.

(a) AUCKLAND

165. Until recently the Auckland school occupied buildings which were, in the words of an eminent visiting English engineer and authority on education, "a disgrace to the city and to the University." Efforts had been made in 1943 to remedy the situation by establishing a new school at Western Springs, three miles to the west of Auckland City. The College Council, however, had some misgivings about the prospective separation of the School of Engineering from the remainder of the college. When, therefore, in 1944 the College Council purchased a site at Tamaki of 120 acres it was proposed that