1. FOREWORD

This syllabus has been prepared by the Mathematics Subject Committee (Sixth Form) of the Curriculum Development Council, Hong Kong in response to the recommendation made by the working Group on Sixth Form Education and in accordance with the guidelines suggested jointly by the Sixth Form Coordinating Committee of the Curriculum Development Council Hong Kong, and the School Examinations Board of the Hong Kong Examinations Authority.

The subject is designed for students intending to continue their studies in science, engineering and technology. Students studying this syllabus are expected to have acquired mathematical knowledge at the Certificate of Education level, however previous knowledge of Additional Mathematics at the CE level would be an advantage.

The syllabus has been scheduled for implementation in schools with effect from September 1992at Secondary 6 and will be adopted in the Hong Kong Advanced Level Examination in 1994. The syllabus presented here does not pretend to provide a great new insight into what mathematics teachers should be trying to achieve. Rather it seeks to provide an indication on how and to what depth a certain topic should be treated through its suggested notes on teaching and time ratio.

The overall objectives of the syllabus are:

(1) to develop students' understanding of basic mathematical concepts, and
(2) to extend students' mathematical skill in problem-solving, and
(3) to further develop students' ability to use basic logical pattern and conventions of reasoning.

These objectives reflect an emphasis which treats mathematics as a tool as well as a way of thought. It is expected that the various topics should be taught in such a way that students learn to think logically and creatively for themselves. They should be led beyond the mere acquisition of knowledge and skills to the full range of mathematical activities: discernment, discovery, invention, appreciation, development and communication.

Teachers who are familiar with the existing curriculum should find no difficulty in adopting this syllabus, but teachers are requested to think afresh about their approach to them. In particular teachers are invited to look carefully at the time ratio for each topic and comments in the notes on teaching which relate to the depth and emphasis of the work. The amount of time allocated to each topic in terms of the time ratio is a deliberate indication of the depth at which it should be treated. The notes on teaching are not intended to give the only acceptable approach to the material, but they are an attempt to provide guidance where necessary and to show how the philosophy of the syllabus might result in practice.