1. FOREWORD

The Advanced Supplementary (AS) Level Applied Mathematics is the subject that has been designed for students intending to continue their studies in engineering, science and technology.

Students studying this sy11abus are expected to have acquired mathematical knowledge at the level of the Hong Kong Certificate of Education Examination. In addition, knowledge of the topics of trigonometry (including compound angle formulae, sum and product formulae), exponential and logarithmic functions, basic operations of complex numbers and elementary calculus will be expected.

This syllabus presented here has been prepared by the Applied Mathematics Subject Committee (Sixth Form) of the Curriculum Development Council. It is a revised edition of the version published in 1991. Rearrangements have been made to bring this syllabus in line with that for Advanced Level Applied Mathematics, so that corresponding parts in the two syllabuses are identical. These include replacing the section ‘Vectors’ by ‘Basic Statistical Inference’; deleting the topics ‘Reduction of Relationship between 2 Variables into Linear Form’ and ‘Lines of Best-fit by the Method of Least Squares’ and adding the topic ‘Method of false position’. The syllabus has been scheduled for implementation in schools with effect from September 1998 at Secondary 6 and will be adopted in the Hong Kong Advanced Level Examination in 2000. Its overall objectives are:

1. to develop students’ mathematical skills in solving real-life problems;
2. to develop students’ confidence and interest in applying mathematics;
3. to provide students with a foundation of mathematical knowledge required in scientific and technological studies at sixth form and beyond.

These objectives reflect an emphasis on both providing students with a sufficient body of mathematical knowledge to serve scientific and technological studies, and developing well-informed individuals.