

## PREFACE

The objective of this course is somewhat different than the conventional short course in computational fluid dynamics. You will find in these notes a very basic, elementary, and tutorial presentation of computational fluid dynamics, emphasizing the fundamentals, and surveying a number of solution techniques ranging from low-speed incompressible flow to hypersonic flow. These notes are aimed at the completely uninitiated student--a student who has little or no experience in computational fluid dynamics. The level of sophistication is equivalent to that of an undergraduate senior elective course in American universities. The intent of these notes is to provide (a) some insight into the philosophy and power of computational fluid dynamics, (b) an understanding of the governing equations, (c) a familiarity with various solution techniques, and (d) a working vocabulary in the discipline. It is hoped that at the conclusion of this course, you will be prepared to better understand the literature in this field, to follow more sophisticated state-of-the-art lecture series, and to begin the application of CFD to your special areas of concern.