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PREFACE

CONTENT OF MODULE

This module was developed from lab notes for a semester course at Universiti Malaysia Pahang— *BMM1312 Computer Programming* — that serves two goals. The first goal is to introduce programming to Mechanical Engineering students. The second goal is to expose students to the conceptual tools in programming. These skills and exposure are important since programming and computing are becoming increasingly in demand in all scientific and engineering disciplines. In this course, students will learn how to develop computer programs with ANSI C using a software called 'Chide'.

PREREQUISITES

This subject is a mandatory subject for all undergraduate students from the Faculty of Mechanical Engineering, UMP. We assume that the students do not have any prior knowledge/background to programming.

SUGGESTED OUTLINE FOR USE OF MODULE

This module is designed to be used during the 2-hour computer lab sessions allocated for the course based on the problem-based-learning approach (PBL). There are 12 parts in this module, in which each part is intended to be completed during each computer lab session over the course of 12 weeks.

In each part, there are guided exercises and exercises. Guided exercises intend to give the students a hands-on experience of coding in a step-by-step manner to solve problems, while explaining the logic and foundations to each step and introduce new programming concepts along the way.

Exercises are designed to solidify the students' understanding by letting the students solve new problems based on the skills/concept they have learnt in the guided exercises.

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