

CIT401 is a course on the organization of programming languages, covering fundamental principles and techniques in programming language design and implementation. The course explores programming paradigms and the historical patterns of programming, elaborating on language structure, data types, and data structures. The course aims to enhance students' ability to express ideas, choose appropriate languages, learn new languages, understand programming implementation, and advance computing overall.

The course is structured into three modules. Module 1 introduces the concept of programming languages, their evolution, and different programming paradigms. Module 2 focuses on language structure, syntax, semantics, lexical analysis, and language processing. Module 3 delves into structuring data, covering data types, data structures, control structures, data flow, and run-time considerations.

Assessment includes tutor-marked assignments (30%) and a final examination (70%). The course guide provides an overview of the course content, duration, and materials, emphasizing the importance of understanding the structural layers of programming languages and formal methods for describing syntax.