— Plano de Ensino 2022.1 —

Código	DCC024
Disciplina	Linguagens de Programação
Turma	CC/SI
Professor	Haniel Barbosa
Horário	2a/4a 13:00-14:40, 19:00-20:40

Ementa. The purpose of this course is to study fundamentals concepts in programming languages and major tools and techniques to implement them. This includes a number of programming paradigms, namely: functional, imperative, and logic, as well as general aspects such as syntax specification and informal semantic models; binding and scoping; types and type systems; control structures; data abstraction; procedural abstraction and parameter passing; higher-order functions; and memory management. The course has a strong implementation component, with three languages being covered: SML, Python, and Prolog. No prior familiarity with these languages is assumed in this course. Learning them will have the secondary effect of exposing students to the different programming paradigms.

Programa.

Class	Date	Content	Category
1	28/03 (Mon)	Course Introduction & Overview	
2	30/03 (Wed)	SML Introduction	
3	04/04 (Mon)	Pattern Matching In SML	
4	06/04 (Wed)	ADTs In SML	
5	11/04 (Mon)	Polymorphism	
6	13/04 (Wed)	Higher-Order Functions & Combinators	
7	18/04 (Mon)	Syntax and Semantics (Part 1)	
8	20/04 (Wed)	Syntax and Semantics (Part 2)	
9	25/04 (Mon)	Formal semantics (Part 1)	
10	27/04 (Wed)	Formal semantics (Part 2)	
11	02/05 (Mon)	Binding and scopes	
12	04/05 (Wed)	Closures	
–	09/05 (Mon)	*Project 1 out*	
13	09/05 (Mon)	Formal languages (Part 1)	
14	11/05 (Wed)	Formal languages (Part 2)	
15	16/05 (Mon)	*Tutorial Project 1*	
16	18/05 (Wed)	**Exam 1**	
17	23/05 (Mon)	Memory management (Part 1)	
18	25/05 (Wed)	Memory management (Part 2)	
19	30/05 (Mon)	Abstraction and abstract data types	
20	01/06 (Wed)	Object Orientation	
–	06/06 (Mon)	*Project 1 out*	
21	06/06 (Mon)	Error Handling	
22	08/06 (Wed)	Parameter passing (Part 1)	
–	10/06 (Fri)	*Project 1 due*	
23	13/06 (Mon)	Parameter passing (Part 2)	
24	15/06 (Wed)	*Tutorial Project 2*	
25	20/06 (Mon)	Prolog introduction	
26	22/06 (Wed)	Unification and resolution	
27	27/06 (Mon)	Numeric predicates in Prolog	
28	29/06 (Wed)	Problem solving with Prolog	
29	04/07 (Mon)	**Exam 2**	

30	06/07 (Wed)	**Make-up exam**
–	08/07 (Fri)	*Project 2 due*

Bibliografia. Modern Programming Languages: A Practical Introduction, by Adam Webber.

Material de apoio. `https://homepages.dcc.ufmg.br/~hbarbosa/teaching/ufmg/2022-1/lp/`

Avaliações.

1	Prova 1	25	16/05
2	Prova 2	25	04/07
3	Projeto 1	15	10/06
3	Projeto 2	20	08/07
4	Listas de exercício	15	