— Plano de Ensino —
— Atividades Remotas Emergenciais 2021.2 —

Código	DCC024
Disciplina	Linguagens de Programação
Turma	CC
Professor	Haniel Barbosa
Horário	2a/4a 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	18/10 (seg)	Course Overview & SML Introduction	Async
2	20/10 (qua)	**Course Introduction**	Sync
3	25/10 (seg)	Pattern matching in SML	Async
4	27/10 (qua)	ADTs in SML	Async
–	01/11 (seg)	*Holiday*	–
5	03/11 (qua)	Polymorphism	Async
–	03/11 (qua)	Q&A and Practical session	Sync
6	08/11 (seg)	Higher-order functions. Combinators.	Async
7	10/11 (qua)	Syntax and Semantics (Part 1)	Async
–	15/11 (seg)	*Holiday*	–
8	17/11 (qua)	Syntax and Semantics (Part 2)	Async
9	22/11 (seg)	Formal semantics (Part 1)	Async
10	24/11 (qua)	Formal semantics (Part 2)	Async
–	24/11 (qua)	Q&A and Practical session	Sync
11	29/11 (seg)	Binding and scopes	Async
–	29/11 (seg)	*Project 1 out*	–
12	01/12 (qua)	Closures	Async
13	06/12 (seg)	*Tutorial Project 1*	Sync
–	08/12 (qua)	*Holiday*	–
14	13/12 (seg)	Revision	Sync
15	15/12 (qua)	**Exam 1**	Async
–	20/12 (seg)	*Break*	–
–	22/12 (qua)	*Break*	–
–	27/12 (seg)	*Break*	–
–	29/12 (qua)	*Break*	–
16	03/01 (seg)	Python introduction	Async
17	05/01 (qua)	Memory management (Part 1)	Async
18	10/01 (seg)	Memory management (Part 1)	Async
19	12/01 (qua)	Abstraction and abstract data types	Async
–	12/01 (qua)	Q&A	Sync
–	14/02 (fri)	*Project 1 due*	–

20	17/01 (seg)	Object Orientation	Async
–	17/01 (seg)	*Project 2 out*	–
21	20/01 (qua)	Error Handling	Async
22	24/01 (seg)	Parameter passing (Part 1)	Async
23	26/01 (qua)	*Tutorial Project 2*	Sync
24	31/01 (seg)	Parameter passing (Part 2)	Async
25	02/02 (qua)	Prolog introduction	Async
–	02/02 (qua)	Q&A	Sync
26	07/02 (seg)	Unification and resolution	Async
27	09/02 (qua)	Numeric predicates in Prolog	Async
28	14/02 (seg)	Problem solving with Prolog	Async
–	14/02 (seg)	*Project 2 due*	–
29	16/02 (qua)	Revision	Sync
30	21/02 (seg)	**Exam 2**	ASync
–	23/02 (qua)	**Make-up exam**	Async

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

Material de apoio. `https://homepages.dcc.ufmg.br/~hbarbosa/teaching/ufmg/2021-2/lp/`

Avaliações.

1	Prova 1	25	15/12
2	Prova 2	25	16/02
3	Projeto 1	15	14/01
3	Projeto 2	20	14/02
4	Listas de exercício	15	