

— Plano de Ensino 2024.2 —

Código	...
Disciplina	Theory and Practice of SMT solving
Turma	...
Professor	Haniel Barbosa
Horário	...
Sala	...

Ementa.

- Satisfiability Modulo Theories
- CDCL(T) architecture
- Theory solvers
- Quantifiers
- Proofs
- State-of-the-art review

Programa.

Class	Date	Content
1	23/09 (Mon)	Intro to SMT
2	25/09 (Wed)	Intro to SMT
3	30/09 (Mon)	CDCL(T) architecture
4	02/10 (Wed)	CDCL(T) architecture
5	07/10 (Mon)	SAT solvers
6	09/10 (Wed)	SAT solvers
7	14/10 (Mon)	Laboratory: SAT solving
8	16/10 (Wed)	Theory solvers: EUF
9	21/10 (Mon)	Theory solvers: EUF
10	23/10 (Wed)	Theory solvers: Linear Arithmetic
11	28/10 (Mon)	Theory solvers: Linear Arithmetic
12	30/10 (Wed)	Theory solvers: Bit-vectors
13	04/11 (Mon)	Theory solvers: Bit-vectors
14	06/11 (Wed)	Laboratory: SMT solving
15	11/11 (Mon)	Exam 1
16	13/11 (Wed)	Quantifiers
17	18/11 (Mon)	Quantifiers
–	20/11 (Wed)	Holiday: Dia da Consciência Negra
18	25/11 (Mon)	Quantifiers
19	27/11 (Wed)	Quantifiers
20	02/12 (Mon)	SMT-based Software verification
21	04/12 (Wed)	SMT-based Software verification
22	09/12 (Mon)	Laboratory: Applications
23	11/12 (Wed)	Proofs
24	16/12 (Mon)	Proofs
25	18/12 (Wed)	Proofs
–	23/12 (Mon)	Blocked: Recesso de fim de ano

	–	25/12 (Wed)	Holiday: Natal
	–	30/12 (Mon)	Blocked: Recesso de fim de ano
	–	01/01 (Wed)	Holiday: Ano novo
26		06/01 (Mon)	Exam 2
27		08/01 (Wed)	Seminars
28		13/01 (Mon)	Seminars
29		15/01 (Wed)	Seminars
30		20/01 (Mon)	Seminars

Bibliografia. A disciplina não possui um livro-texto. Diversos materiais de leitura, entre notas de aula, tutoriais, capítulos de livros e artigos, serão passados durante o semestre e serão disponibilizados na página da disciplina.

- Decision Procedures: An Algorithmic Point of View by Daniel Kroening and Ofer Strichman
- A Mathematical Introduction to Logic by Herbert B. Enderton (online version).

Avaliações.

1	Prova 1	25%	??
2	Prova 2	25%	??
3	Projeto	30%	
4	Seminário	20%	
